PRINCE WILLIAM SOUND OIL SPILL RESPONSE ACT

HEARING

BEFORE THE

SUBCOMMITTEE ON
COAST GUARD AND NAVIGATION

OF THE

COMMITTEE ON
MERCHANT MARINE AND FISHERIES
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

H.R. 2158—TO PROVIDE BETTER MARITIME SAFETY FOR PRINCE WILLIAM SOUND, ALASKA, AND FOR OTHER PURPOSES.

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PRINCE WILLIAM SOUND OIL SPILL RESPONSE ACT

THURSDAY, MAY 11, 1989

House of Representatives,
Subcommittee on Coast Guard and Navigation,
Committee on Merchant Marine and Fisheries,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:14 p.m., in room 1334, Longworth House Office Building, Hon. Billy Tauzin, Chairman of the Subcommittee, presiding.

Members present: Representatives Tauzin, Laughlin, Carper, Unsoeld, Pallone, Davis, Young, Bentley, Coble, Goss, and Weldon.

Staff present: Roy Willis, Cornel Martin, Sue Stilley, Marsha Canter, Bill Wright, Ed Welch, Barbara Cavas, Kurt Oxley, Lee Crockett, Duncan Smith, George Pence, Rebecca Dye, Sherry Steele, Sue Waldron, Cyndy Wilkinson, Greg Lambert, and Gwen Lockhart.

OPENING STATEMENT OF HON. BILLY TAUZIN, A U.S. REPRESENTATIVE FROM LOUISIANA, AND CHAIRMAN, SUBCOMMITTEE ON COAST GUARD AND NAVIGATION

Mr. Tauzin. The Subcommittee will please come to order. We will reconvene, as I announced earlier this morning, for the purpose of hearing H.R. 2158, the Prince William South Oil Spill Response Act, a bill filed by one of our colleagues from the State of Alaska, Don Young. The Chair now recognizes Mr. Young for an opening statement.

OPENING STATEMENT OF HON. DON YOUNG, A U.S. REPRESENTATIVE FROM ALASKA

Mr. Young. Thank you, Mr. Chairman. I would like to express my deepest gratitude to you to continue these hearings after the hearings this morning, and especially the Chairman of the Full Committee, Mr. Jones, and yourself, for expedited action on my legislation. I am going to say the vast amount of work that you and your fine staff have done will be not forgotten by myself and other Members of this Committee, because all of us in Alaska are concerned with preventing accidents such as the *Exxon Valdez* in the future.

When I first introduced this legislation, it was my intention that this be the first step of many toward correcting the deficiencies which caused the *Exxon Valdez* tragedy. I say tragedy, Mr. Chairman, and I mean exactly that. Those 240,000 barrels of crude oil that spilled into the Prince William Sound represent a tragedy for my State. People's lives and livelihoods have been severely impacted by this accident. Herring fishing has been disrupted for this year, at least. The beaches of Naked Island, Knight Island, Montague Island, have been badly oiled, and a general uncertainty exists about the environment of the Sound.

What is most distressing to me, Mr. Chairman, is that all of the pain and suffering that the residents of Alaska are enduring at this time was preventable. This accident was the result of nothing more than gross human negligence, negligence from a sea captain who thought it more important to go below for a rest than comply with pilotage laws; negligence from an incompetent third mate who, despite several warnings of danger, ran the vessel aground at a speed that all but destroyed the integrity of the vessel; negligence from the oil industry who, in the course of 8,700-plus transits, had allowed its spill response capability to virtually disintegrate; negligence, I am sorry to say, from the Coast Guard and OMB, who despite repeated warnings from myself and the fishing industry, thought that it was a worthwhile trade to put at risk the people of Prince William Sound so they could save a couple of dollars on their vessel traffic control system. That was brought up to the Committee today, and hopefully, Mr. Chairman, with your help we can reinstate those monies in the budget for the Coast Guard and reinstate the traffic control system.

We in the Congress, the State of Alaska, and others share the responsibility—and I want to stress that—we in the Congress, the State of Alaska, and others share the responsibility because we failed to ensure that oil spill contingency plans were adequate. We also failed to provide a spill management structure which provided for anything more than management by committee, which in a crisis means nothing short of absolute chaos.

These are a few of the problems that my legislation is designed to correct. While H.R. 2158 only represents the first step toward correcting the causes of the *Exxon Valdez* disaster, this Committee will be addressing more as the National Transportation Safety Board and others complete their findings and make some recommendation to this Committee. This Committee also has hearings scheduled in Alaska this summer which should shed further light on ways to prevent this disaster from ever reoccurring—and I stress that—ever reoccurring.

I look forward to hearing the witness' testimony this morning, as it will likely be the last hearing before this legislation is acted on by this Committee. Mr. Chairman, I am here to learn, as you are here to learn, but we are also here to act in a positive fashion to solve this terrible problem that Alaska faces and the Nation faces. My bill addressing the Prince William Sound is a bill that will address that which did not occur in the past and will make sure it is in place for the future.

I thank you again, Mr. Chairman, for having these hearings.

Mr. TAUZIN. I thank the gentleman for his statement. The Chairman of the Full Committee, Chairman Jones, has also asked that his statement be included as a part of the record. We have a statement of Mr. Weldon, too. Without objection, so ordered.

[The statements of Mr. Jones and Mr. Weldon follow:]

STATEMENT OF HON. WALTER B. JONES, A U.S. REPRESENTATIVE FROM NORTH CAROLINA, AND CHAIRMAN, COMMITTEE ON MERCHANT MARINE AND FISHERIES

Torrey Canyon . . . *Argo Merchant* . . . *Amoco Cadiz* . . . *Santa Barbara* . . . *Ixtoc I* . . . *Exxon Valdez* . . .

These familiar names call to mind cleanup battles in the great war we wage each day to protect our environment. It is obvious that this Nation will continue to require extensive amounts of petroleum and petroleum products for the foreseeable future. Consequently, the problems associated with the use of fossil fuels, including oil pollution, will remain with us. We must insure that all reasonable precautions are taken to prevent a spill, and when a disaster does occur, learn from our mistakes. That is the purpose of this hearing today.

My friend and colleague, Don Young, has introduced a bill that specifically addresses the spill in Prince William Sound in his home state. I admire his quick action and am pleased that this hearing was scheduled so expeditiously. I am quite sure, however, that many of the lessons we have learned from the spill in Alaska can be applied in other areas of the country.

As we speak, there are several bodies investigating the causes of this terrible accident. The National Transportation Safety Board is holding meetings and the Coast Guard is conducting a review of the incident. In addition, last February I requested the General Accounting Office to analyze how well the Coast Guard is carrying out its environmental responsibilities. After the *Exxon Valdez* accident, I requested GAO to expand their study to include a study of contingency plans, readiness, spill containment and cleanup, and prevention. That study should be completed by August, and the committee will receive a report on those findings at a hearing in Valdez at that time.

We are all worried about the possibility of a tragedy in our districts. The events in Alaska can teach us a great deal, chiefly, that spills, wherever they occur, have national repercussions. For this reason, it is my hope that we can develop a generic, rather than a site specific, bill to implement some of the recommendations we will receive from the experts now reviewing what went wrong in Alaska. There may be limited amendments we can add to legislation now before this Committee, and I would certainly not object to such an approach. I simply believe we must look at the broad picture since no state is immune, no coastline protected, from potential disaster. Hopefully, we can not only win the battle in Alaska, but also take something positive from the tragedy by using what we've learned to help win the war against environmental pollution.

STATEMENT OF HON. CURT WELDON, A U.S. REPRESENTATIVE FROM PENNSYLVANIA

Mr. Chairman, I commend you for holding today's hearing. Having recently returned from Prince William Sound with Secretary Lujan and Representative Young, I believe that it is essential Congress continue to monitor the situation up there and draw long-term conclusions that will help us avoid such an incident in the future.

Although hindsight is 20/20, I can confidently say that the accident should have been avoided. Fifteen years without a major accident in the Sound made the oil industry complacent. A leader in the oil industry such as Exxon should never have allowed a pilot with a history of alcohol problems to run a large tanker. Once the accident occurred, other mistakes were made especially during the first three days. While oil continued to pour out of the tanker into the pristine waters, Exxon and the Coast Guard argued back and forth about who was in control of the cleanup. The initial response should have been quicker and more decisive.

As a cosponsor of H.R. 2158, I think the bill is a good place to start in assessing the accident. The bill addresses some of the key issues, such as enhancing the Coast Guard's authority to direct the cleanup operation. It also allows the Secretary of Transportation to revoke a mariner's license for alcohol-related offenses. Mr. Chairman, I encourage the Members of your Subcommittee to listen carefully today's testimony and to support the bill.

Mr. TAUZIN. Is there any other Member wishing to make a statement, an opening statement?

[No response.]

Mr. TAUZIN. Then the Chair wishes to announce again that we are pleased to have visitors from the Full Committee participating in these hearings today. We will allow them to participate as guests following the initial round of questioning by Members of the Subcommittee.

I also wish to point out, as Mr. Young has stated, we very much welcome this hearing to focus directly upon Mr. Young's suggestions for this specific legislation and the problems that Prince William Sound has recently experienced. Secondly I'd like to point out, as he did earlier, that we will be visiting Prince William Sound in August as a full Subcommittee, along with the Subcommittee on Fisheries and Wildlife, Chairman Studds, and that we will devote sufficient time then not only to look at the progress of the cleanup but also at the other issues involving prevention and reaction that are very important as we examine this problem as it may affect the rest of the coastline of the United States.

Finally let me say that we have chosen not to go until August—and I want to make this publicly known to those of you here with reference to Prince William Sound—on purpose. One, our Committee will have good and ample time to completely review the situation there and, two, we think that enough time will have passed that the cleanup will have progressed to a point where we can really examine it coolly and objectively, and that we will pass somewhat all of the frantic days that immediately follow this incident into a more calm and I think more productive time to think and reflect and to make some good decisions, for the good of not only Prince William Sound and Alaska but for the Nation.

We will proceed now with the witness list, and we are pleased to have with us on the first panel Rear Admiral Joel Sipes, who is the chief, Office of Marine Safety, Security and Environmental Protection, United States Coast Guard. Admiral Sipes is also here with Charles Ehler, who is director of the Office of Oceanography and Marine Assessment, National Ocean Service, NOAA, and Dennis Kelso, director of the Department of Environmental Conservation, State of Alaska.

Dennis, you heard my statement to the earlier panel, that if you want to make comments about the previous issues dealing with the oil spill liability, we will welcome those comments at this time, as well.

Witnesses are reminded of the 5-minute rule. Your statements, written statements, will be made a part of the record. We would appreciate summaries, if you can summarize your testimony at this time.

Admiral Sipes?

STATEMENTS OF A PANEL, CONSISTING OF REAR ADMIRAL JOEL D. SIPES, CHIEF, OFFICE OF MARINE SAFETY, SECURITY AND ENVIRONMENTAL PROTECTION, UNITED STATES COAST GUARD AND MR. DENNIS KELSO, DIRECTOR, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, STATE OF ALASKA

STATEMENT OF ADMIRAL SIPES

Admiral **Sipes**. Thank you, Mr. Chairman, and good afternoon.

Although this portion of the hearing focuses on H.R. 2158, the Department, of course, is unable to make specific comments on the bill, but I would like to review with you some of the work that we have underway that relates to the bill, and to give you an opportunity to hear some of the activities that we have that may be helpful to the given end.

Let me mention a few of the initiatives currently being undertaken by the Coast Guard, measures arising from the *Exxon Valdez* casualty. As a first step, we are beginning to evaluate existing worldwide pollution response equipment. We want to know what is available that we could call out and if there are new techniques that we could adopt.

We have begun to look at the adequacy of the Coast Guard strike teams relative to their number, their locations, and their equipment. We are developing several legislative proposals on merchant vessel personnel, remembering that no matter what else we do, clearly 80 percent of the world's marine casualties are the result of human error.

In particular, the Department of Transportation is seeking authority to suspend or revoke licenses and other seamen's documents for misconduct ashore related to alcohol abuse. The Department is also seeking authority to deny issuance or to withhold renewal of licenses based on unacceptable character, habits of life, or other criminal offenses.

The administration is especially concerned about ratification of the International Convention on Standards of Training, Certification and Watchkeeping. Ratification of this convention will require both U.S. and foreign tanker crews to meet comparable, more stringent qualifications. We have implemented about 95 percent of its provisions domestically already. U.S. ratification would go a long way toward bringing foreign crews arriving in the U.S. to the same standard.

We have undertaken an extensive review of all national, regional, and local contingency plans. A first step currently underway is an immediate risk assessment of all U.S. deep-draft ports for risks based either on worst-case scenarios or especially sensitive environmental areas.

We are studying the need for additional authorities under the Clean Water Act and the Port and Tanker Safety Act. We hope, for example, to establish a workable disaster management type super response mechanism for use with catastrophic spills such as the *Exxon Valdez*, spills that the President might declare to be of national significance.

I have only identified some of the areas that we are examining with a view to improving our existing spill response posture. As the full story of the *Exxon Valdez* incident emerges, there certainly will be other areas.

In this vein, it was heartening to read recently of the recent efforts of Alyeska to strengthen its oil spill response capability. Alyeska has acquired three large emergency response vessels for duty in Prince William Sound. The vessels, each about 200 feet long, will escort outbound loaded tankers within the Sound. They have the capability to tow a vessel in distress and also immediately deploy oil spill recovery equipment in the event of a spill. Use of such vessels may prove to be quite significant for other carefully selected areas, based on our risk assessment.

The President has called for a nationwide review of contingency plans, and the work that I previously described is part of that. The report is to determine the adequacy of response time of contingency plans nationwide. The National Response Team established under the Clean Water Act and the CERCLA Act will undertake this reevaluation of existing planning. The study group will be led by the Coast Guard.

Suffice it to say, the *Exxon Valdez* incident has heightened our collective concern to avert and deal with oil spills, especially in the mechanisms available to deal with large spills of national significance. One catastrophic incident has raised many questions, all of which deserve to be answered.

Needless to say, I don't have all of the answers to a number of the complex questions raised by the *Exxon Valdez* incident, but I can assure you that the Coast Guard is diligently striving to develop answers. Even though the cleanup will not be complete for months, it is not too soon for us to start planning ahead.

It is my personal view that if we truly are interested in protecting the environment, then our emphasis might be on bringing to bear every possible means of preventing marine casualties to begin with. There are a number of simple things that could be done right away. For example—and we are looking at these—possibly requiring periodic computer simulation training for ships' officers holding pilots' endorsements; requiring a piloting team in the wheelhouse during the transit of certain internal waters; separate crews in port for loading and discharge, saving the ships' crews for navigation. I suspect fatigue may have been a factor in this instance.

We will look at the state of the art in electronic charting with auto alarms, and we are looking at the development of ship-based contingency plans, detailing what should be done on board to minimize the effects of an accident. And even though we don't expect to prevent every incident, when the response teams come into play, they must be prepared.

And so you can see we are working on a lot of various initiatives. We look forward to working with the Subcommittee to be most effective not only in Prince William Sound but in other areas as well.

Thank you, Mr. Chairman. I would be happy to answer any questions.

Mr. TAUZIN. Thank you, Admiral.

Mr. Ehler, if you will again summarize your testimony for us, please.

STATEMENT OF MR. CHARLES N. EHLER, DIRECTOR, OFFICE OF OCEANOGRAPHY AND MARINE ASSESSMENT, NATIONAL OCEAN SERVICE, NOAA

Mr. EHLER. Thank you, Mr. Chairman and Members of the Subcommittee. My name is Charles N. Ehler. I am the director of the Office of Oceanography and Marine Assessment of the National Oceanic and Atmospheric Administration within the U.S. Department of Commerce.

One unit of my office, the Hazardous Materials Response Branch, routinely provides scientific support to the Federal on-scene coordinator during the response to oil spills. We also provide NOAA representation to the National Response Team and to the Alaska Regional Response Team. In addition, I have been assigned recently by the Under Secretary of Commerce for Oceans and Atmosphere to manage the NOAA effort to assess the damages to public trust resources as a result of the *Exxon Valdez* oil spill.

I appreciate the opportunity to discuss the responsibilities and activities of NOAA under the National Contingency Plan and during the *Exxon Valdez* oil spill. As you know, the administration is currently reviewing H.R. 2158, the Prince William Sound Oil Spill Response Act of 1989, and therefore I am unable to comment on the specifics of the bill. However, I would be happy to answer questions about NOAA activities related to damage assessment and monitoring following this summary.

When the *Exxon Valdez* grounded on Bligh Reef in the early morning hours of March 24, NOAA was at the scene quickly. The scientific support coordinator in Anchorage was called that same morning and reached Valdez within hours of being notified. By the end of that first day, our Hazardous Materials Response Branch had a team of six scientists and a NOAA helicopter available in Valdez to assist the OSC.

Predictions of the movement of the spilled oil, together with weather and tidal forecasts, were provided within the first 24 hours of the accident. Routine overflights to map the extent of contamination were started on March 26th. Daily reports and maps on the movement of the oil and extent of contamination are still being provided to the Federal on-scene coordinator and other responders to facilitate coordination of the cleanup. Maps of environmentally sensitive areas were provided to the Federal on-scene coordinator to facilitate coordination of the cleanup.

The Hazardous Materials Response Branch now has more than 20 of its staff working in Valdez, Seward, Homer, Kodiak, and Anchorage, coordinating scientific response to the spill and briefing affected local communities. Our representative to the Alaska RRT has also provided technical information to the on-scene coordinator on dispersant use, shoreline cleanup, and concentrations of petroleum hydrocarbons in the water column.

NOAA acquired and deployed portable weather stations and data-gathering buoys for improved tracking of the spilled oil in Prince William Sound and the Gulf of Alaska.

To fulfill its trustee responsibilities, NOAA scientists quickly moved into the field to gather baseline information on water quality and the presence of marine mammals and fisheries resources before the spill reached areas of special concern. This damage assessment work, financed by the diversion of other NOAA program resources, was carried out cooperatively with field staff from the Departments of Interior and Agriculture and the State of Alaska Department of Fish and Game.

NOAA, because of our experience in conducting damage assessments, drafted a preliminary damage assessment plan as early as April 3rd, just a few days after the spill. NOAA and the other trustees have moved quickly to form a coordinating council located in Alaska and supportive management teams to oversee ongoing damage assessment studies and complete the comprehensive damage assessment plan, which is now scheduled to be completed by the end of June.

Along these same lines, NOAA presides over an interagency National Ocean Pollution Policy Board. Under the auspices of this board, an interagency planning group has already prepared a draft of an extended studies program plan as a strategy for conducting research and long-term monitoring on the effects of the *Exxon Valdez* spill. This draft will be reviewed at a special meeting of that board scheduled for next week.

Thank you, Mr. Chairman. I will be happy to respond to any questions that you or other Members of the Subcommittee might have.

[The statement of Mr. Ehler may be found at end of hearing.]

Mr. TAUZIN. Mr. Ehler, we thank you for your testimony.

Mr. Kelso, we will again also ask you to summarize your comments for us, if you will. Thank you.

STATEMENT OF MR. KELSO

Mr. KELSO. Thank you, Mr. Chairman.

I am the commissioner of the Alaska Department of Environmental Conservation, and our department is the regulatory agency with primary responsibility for environmental protection, including oil spill prevention and response.

Mr. Chairman, I appreciate your invitation to comment on H.R. 1465 from this morning. Our written comments are part of the record, so aside from making just a one-sentence statement here, I will defer and let you review that instead. What I would say is, Alaska has gone through and is still going through the largest oil spill disaster in North American history, and so we have a very deep concern about liability and compensation. What I can say is that $60 million is simply not adequate for liability, as the Exxon disaster has shown. It is our environment, our fish and wildlife, and our people that need protection now, not operators like Exxon.

In the weeks since the *Exxon Valdez* spilled 11 million gallons of oil in Alaska's Prince William Sound, Alaskans and much of the Nation have experienced the anguish and frustration that results from such a tragedy. After the spill, I was in Prince William Sound virtually every day for 5 weeks. I have witnessed the confusion and delays in responding to the spill, and it has been a painful learning experience for all of us. I would like to share with you some observations about what we can do to prevent these incidents and how we should deal with them.

The key to protecting ourselves from future oil spills is prevention. Once the oil is in the water and on the beaches, we are already behind and the damage is done. I believe the *Exxon Valdez* spill could have been prevented, and that through reasonable legislation we can prevent other spills in the future.

Governor Cowper, in testimony before the Senate Subcommittee on Environmental Protection, recommended that the Federal Government take immediate, concrete steps to minimize the chances of another massive spill. Specifically, the Coast Guard should make a thorough review of tanker design, construction, and operations, so that human errors will not result in loss of a tanker and its cargo.

Coast Guard licensing requirements should be revised so that licenses are reexamined more frequently, and information on drug and alcohol violations is available to prevent giving command of a supertanker to a person who could be incapacitated. At the same time, we should conduct a thorough review of drugs and alcohol in the maritime industry and look for new measures to prevent their contributing to another tragedy.

A thorough review should be made of Coast Guard radar, navigational aids, navigational systems, and other safeguards throughout the Nation, so that shore-based radar is always available when a tanker is maneuvering in dangerous or sensitive waters.

We are pleased to see that H.R. 2158 embodies many of these recommendations. Accordingly, we urge the prompt enactment of legislation which incorporates these and other needed changes in Federal law and policy.

We must also reexamine the system for responding to oil spills. The Federal and State governments and the industry must prepare in advance for the next large spill. Again, we recommend that Congress require all tankers to have the ability to contain and clean up oil—for example, by having equipment and trained personnel on board to deal with large spills the moment they happen.

We recommend that the National Oil Spill Contingency Plan be changed so that the State and the Coast Guard have strong authorities to direct the response to large spills without waiting to see if the responsible party who will ultimately pay the bill does an adequate job. Responsible parties should still be required to shoulder the financial responsibility and full liability, but the government entities should be ready and able to step in right at the beginning.

A worldwide computer inventory of spill equipment and experts should also be maintained, so that whatever is needed can be put on site without delay. Similarly, computerized data on the characteristics of coastal areas should be maintained, so equipment and personnel can quickly be sent to wherever they will do the most good.

The State also recommends that we reexamine the entire structure of contingency planning, to make sure that the right equipment and personnel are always available at strategic locations throughout the country, always full trained, and always ready to respond at a moment's notice.

We have also learned the importance of having emergency funding available at all times. I mean funding both for immediate containment and for cleanup work, which is enormously expensive, and for giving emergency relief to people whose property and livelihoods are damaged by a spill. We cannot depend on the oil industry to fill these needs.

The State recommends a comprehensive look at existing Federal funds available for containment and cleanup, so that we are funded at a level needed for a major catastrophe and so that access is quick and efficient.

We recommend the same sort of comprehensive look at the Federal programs available for emergency aid to individuals, and we recommend a comprehensive look at ways to ensure that all claims for damages caused by an oil spill will be paid by the responsible parties.

We realize that we need to reexamine whether existing civil and criminal penalties in Federal law are adequate for major oil spills. Existing penalties are not designed for large spills and contain unrealistically low limits. We need to have tough laws that give a real incentive to industry to avoid spills and clean them up, not merely to treat them as another cost of doing business.

Finally, the State of Alaska urges Congress to set up a new program for intensive research into oil spills, how to prevent them and how to deal with them once they happen. We should not have to use a spill like that in Prince William Sound as an experimental laboratory to find out the best way to contain and clean up oil. We should know how in advance. An aggressive research and development program is essential.

The State of Alaska is not, however, waiting for the Federal Government to fix everything for us. We already have begun many of these tasks ourselves. Terminal and tanker activities in Valdez are operating under stringent conditions set out in an emergency order from my department.

As Admiral Sipes mentioned, Alyeska's capacity has now been strengthened, but I would like to point out that it was strengthened only when faced with my direct order, which has now been signed and implemented. The Governor will be writing to Secretary Skinner to request that the Coast Guard impose conditions similar to those contained in my emergency order.

We have requested and the legislature has approved a multimillion dollar appropriation for cleanup. We have begun our own thorough review of contingency planning, and every division of State government has been involved in addressing the social, fiscal, and resource impacts in the affected communities. Already we have identified in State government the computer capability to compile on one data base all the information needed to respond to a spill.

Finally, in looking to the future, we have begun identifying areas of needed change in State law. The legislature already has passed six measures requested by the Governor, such as strict liability measures for oil spills. Details on some of these activities are included as appendices to our written testimony, and we request that they be included in the record.

But we can't do it alone. What we are looking for now is cooperation in resolving those issues that go beyond the State level, that have the potential to assist coastal States throughout the Nation. We look forward to working with you to identify ways of doing that.

Thank you, Mr. Chairman. We appreciate the opportunity to provide these recommendations on behalf of the Governor. It is our hope that this spill, as tragic as it is, will result in constructive measures to ensure that such accidents can never happen again in Alaska or anywhere else.

Mr. Chairman, I brought with me today something that I will just pass around, and that is an oil spill in a jar. This is from Prince William Sound, and I brought with me also an absorbent pad which I pulled off the beach in Resurrection Bay, and I will send that around too in case we have a spill. We might have to boom this up. We have a small skimmer outside.

I also have some charts which I won't go into, but if there are questions about the progress of the spill or the response or where tankers were accompanied and so forth, we have charts to illustrate that.

[The statement of Mr. Kelso may be found at end of hearing.]

Mr. TAUZIN. Before you haul that around, Mr. Kelso, number one, are you licensed, and number two, have you demonstrated financial responsibility?

[Laughter.]

Mr. TAUZIN. And when was the last drug test you had?

Mr. KELSO. I think your staff administered breathalizers as we came in the door.

Mr. TAUZIN. Thank you very much, Mr. Kelso.

We will now enter a round of questions. I will start first of all by thanking you all for coming, and I will begin with the ranking minority Member, Mr. Davis.

Mr. DAVIS. I will pass for now.

Mr. TAUZIN. He passes now, and we will move over then to the author of the bill, Mr. Young.

Mr. YOUNG. Collectively, gentlemen, the Coast Guard said you haven't had time to review it and see the impact, NOAA explained their position, and Commissioner, you do support this legislation, with some additions or subtractions. Is that correct? Yes or no?

Mr. KELSO. That is correct. A lot of what we have asked for is in the bill, and we think it can be adjusted to meet all of our needs.

Mr. YOUNG. As long as we all understand, in a good sense of compromise. Someone asked me, why do it? The State has already required it now, and Alyeska has agreed to it. It is my intent to make sure, as the Commissioner said, that this does not happen again, and I am confident—and as a States' rightist, it is hard for me to say—it is very difficult, when there is a vested interest on both sides, the State and in fact the oil industry, to make sure things are followed through. Sometimes I have found in some cases a Federal law requiring certain standards is more effective, so that is the intent of this legislation.

As far as the NOAA group, Mr. Ehler, I will tell you, you have a fine team up there. I am deeply impressed with their integrity and their straightforward answers and their hard work. I think working with the DEC has been good, and it has been a good cooperative effort.

I know the Coast Guard has taken some lumps, but in reality, because of this massive disaster, overall there has been a great learning experience for all three branches here.

Mr. Chairman, I would suggest that what we are here for, other than my making speeches, is to find out your suggestions. The way I hope this system will work is, very quickly, if there are suggestions that can work from all witnesses that we haven't thought of, or if there are reasons why the things that we have thought of can't work, we are going to do a lot of that input and then write a bill. Hopefully, Mr. Chairman, it will be accepted by the Committee and move very rapidly, because even today, even with the State's participation, there is oil being moved through that terminal and we don't have that response, even with the action that has been in place. Two years from now people might—hopefully they do not—

forget this, and we will be back where we were. So if those suggestions come forth from the testimony you have given, I appreciate it.

Mr. TAUZIN. Thank you, Mr. Young.

The emergency orders that have been issued, Mr. Kelso, how long do they stay in effect? I notice you are requiring every tanker, when it arrives, to be boomed and inspected hourly and again before it leaves. Does that order have some length in time? Is it going to expire?

Mr. KELSO. Mr. Chairman, the provisions of the emergency order phase in at different times, and some of them also have provision for no longer being in effect. For example, the limitation to daylight operations has a built-in phaseout when certain other conditions are met.

Mr. TAUZIN. I see.

Mr. KELSO. We have already indicated to Alyeska that we will be conducting a full-scale review of the contingency plan, and as soon as that review and its update is completed, then the emergency order no longer needs to stay in effect.

This is a copy of the contingency plan that was in effect at the time of the spill. It is substantial, and it was specifically tailored to meet a 200,000 barrel spill from a tanker, so the fact that this plan was not implemented by Alyeska is a very serious matter as far as we are concerned, and we are going to follow up.

Mr. TAUZIN. Mr. Young wants to follow up with a question.

Mr. YOUNG. Along those lines, Commissioner, and I think it is important because you bring it up, one of the things that disturbed me most about this is, in 1973 we passed the Alaskan Pipeline Act. At the request of the State, the oil industry was put in charge, in conjunction with the State, of the oil spill plan. We won't talk about the plan because, as the Admirals say, it was a zero. But what I am interested in is, to my knowledge—and you can clarify this—there had been no test or upgrading of any equipment concerning a containment or oil spill occurring in Prince William Sound.

It is my intent—and we have already started on that, and I hope you agree with it—that there will be a lab established, not in Valdez but in Cordova, and I say that because there is a reason, there is a conflict within Valdez, and secondly that we have an area that will be in the Sound that we can actually experiment and work with spill activity, not in a lab, because applied science is a whole lot better than theory. Now you can correct me, but I think we were picking up oranges with a skimmer. I don't know what oranges had to do with Alaska.

It is a different water content. It is not a salinity water. We have tidal actions that are different. We have a great many different things, and we didn't have any tests. We are going to need the support of the State and the Federal Government, because it is mostly Federal land, although we have control up to mean tide, where we can put in an area where we can actually experiment with new activities.

I know one of the future witnesses has some comments on this, too, but I hope the State will support something like that, because I expect we are going to write something in the bill, if we can get the cooperation, where there will be a lab established—not a building, but an applied science lab in Alaska—because we are the greatest exporter of oil to the Lower 48, and we need that.

You might comment on that, if you can.

Mr. KELSO. There are two parts to that, and let me answer the second one first: We think that research and development in prevention and containment and response is essential, and working in real life conditions is absolutely necessary.

I might show you one thing here, with your permission, Mr. Chairman. This chart gives you a picture of the full extent of the spill as of May 2nd. Of course, the spill goes further now, but this is essentially 550 miles—air miles. I am not talking about coastline.

This is what that would look like if you had a spill at Cape Cod. It would extend all the way down to Virginia, the southern part of Virginia, as of May 2nd. It would go even further now.

This is the part that I wanted to show you about the contingency plan. I think there has been an assumption by some people, I am not suggesting the Committee, that the plan itself could not have caused this oil to be recovered. Now that is not correct, and let me show you why. This is the first 72 hours of the spill. During the first 72 hours—excuse me, during about the first 65 hours—the winds were exactly the assumption that this contingency plan had made. During that time it was suitable for skimmers, and it wasn't until about 65 hours into the spill that the wind came up at all, so you had calm seas, no swell, sunny skies, and no wind. Just using the equipment specified in the contingency plan, this level of recovery should have been achieved prior to 72 hours, prior to when the wind came up.

Mr. TAUZIN. What percent is that?

Mr. KELSO. Forty thousand barrels.

Mr. TAUZIN. What percent of the spill would that have been?

Mr. KELSO. That would have been possible. However, the actions and the equipment specified in the plan, the crews, the timetable, were all violated, and actual recovery at that point was only 3,000 barrels.

Mr. WELDON. Mr. Chairman, would the gentleman yield?

Mr. TAUZIN. Mr. Young has the time.

Mr. YOUNG. Go ahead.

Mr. WELDON. The concern that we heard, and I accompanied my colleague, Mr. Young, for 5 days up in the area, and talked to Exxon and the Coast Guard officials, and we were led to believe that for the first 3 days, that Exxon attempted to obtain permits from both the State of Alaska and the various Federal agencies to implement those technologies to recover the spill, and were not given the response to allow them to proceed. Is that correct or incorrect?

Mr. KELSO. That is an excellent question. That is incorrect. I believe the information you were given, I think you reflected that information correctly, but that information is not correct. Let me show you why.

The State of Alaska, for precisely the reason of saving time in the event of a spill, had preapproved the use of chemical dispersants throughout this entire crosshatched area. This is Prince William Sound now, and this shows the hourly changes in the spill.

For a long time that was a reasonably thick patch of oil. The winds were suitable for using mechanical means, such as skimmers and booms, but not for the use of chemical dispersants because there wasn't enough energy in the sea state to allow those dispersants to work well, but we had preapproved and have preapproved still the use of them.

It was then the Coast Guard's call as to whether those would be effective, and I believe it is correct—and Admiral Sipes can correct me if I am wrong—that the Coast Guard approved every request for application of the chemical dispersants, but those were not successful until Sunday, late afternoon. I think the record reflects that Exxon also concurred that they were not effective.

So when there was the first successful application, the Coast Guard said go ahead. Our approval was already in place, and then it was up to Exxon to apply them, but Exxon had problems doing that. For one thing, at the time of the spill, the airplane that they use for chemical dispersants was in Florida. They didn't have enough other equipment on hand. The first test drop was done, and they didn't have enough dispersant on hand, even if they had had the equipment on hand to apply it.

So your question is a good one but it is really—I think I have been pretty hard on Exxon, and I don't want us to waste the Committee's time here—

Mr. YOUNG. Reclaiming my time, reclaiming my time, I hope that there has been enough finger-bashing in this whole thing right now. We are trying, through my legislation, to prevent another spill. That is what we are trying to do, and my question to the Commissioner was the establishment of a lab in an area, and I thought you were going to show me where we might be able to do it, because that is crucially important.

I don't want the State at a later date to say, "We can't have a lab or we can't test in this area because of the following things." I think it is going to be on Federal land, but again we have to be involved because we have mean tide water control. Then it is Coast Guard. It has to be a joint effort through NOAA or wherever it may be, because it doesn't do us any good to have a plan if we haven't tried it, and that is what I am suggesting.

Mr. KELSO. This is the site that Congressman Young is referring to, in Cordova.

Mr. YOUNG. Right.

Mr. KELSO. Here is where the spill occurred. You have seen where the spill moved, down through here, so there are a variety of locations that would certainly be suitable for experimental use.

Mr. YOUNG. Again, Commissioner, my problem is, where I am going to have to have the help of the State is because I can just about assure you that there will be someone, somewhere along the line, if this Congress writes into this legislation that it shall be established, there will be someone who will file a suit saying you can't establish the lab, and they will say because it is going to be environmentally damaging and we must not do this.

But in the meantime, all the work we are putting into this, all the anguish you have gone through for 5 weeks, is for naught, because we cannot be prepared. This is one area. It is different from all other areas in the United States. It doesn't do any good to have an oil spill team in Texas, with all due respect, because they have a different climate, water with a higher salinity factor, no tidal action, maybe higher winds sometimes, but I doubt that.

So we have to do it in Prince William Sound, and I know we are going to have some testimony from one of the fishing organizations, and I hope we will have their support, too. That means we can compound it, we can contain it, and yet we could have that happen someplace in that area, because if we do not, this thing could happen again.

Do you have an area there you want to show me?

Mr. TAUZIN. If the Chair might observe, Mr. Young, there was a group in Louisiana with microbial techniques that they wanted to demonstrate in a lake near Lake Charles. Our own Fish and Wildlife objected to the experiments and demonstrations, as well as local people, and the point you have raised is very valid. If we are going to ever get experiments done, we have to get authority somewhere to get them done, and demonstrations in the real world. I suppose that is the point we ought to leave you with, Mr. Kelso, that we are going to need some help from the State authorities if we are going to get it done.

Mr. KELSO. Mr. Chairman, we have already started talking with the Norwegians about just how they do their drills, and whether they use live oil or some simulated material. It is a valid point and a tough one, but it needs to be resolved.

Mr. TAUZIN. We will go down again in the list of seniority. Mrs. Bentley just arrived. Do you have any questions?

Mrs. BENTLEY. The only question I might have, and I am sorry I haven't been able to listen to this, is what are you doing about the piloting up there? As I understood it—and correct me if I am wrong—an attempt to have State pilots or train pilots to take these ships in and out of the port for a long way was killed a few years ago with the consent of the State of Alaska. If there had been a pilot on board, this might not have happened. Is there any rethinking of that matter?

Mr. KELSO. Let me put a chart up to show you exactly where we are talking about, but my emergency order requires that there be a State-certified pilot on board to an area further south than where this tanker went aground, and it also makes provision for—in the letter from the Governor to Secretary Skinner there will be a request for there to be a federally certified pilot on board even further.

The reason that the change was made, one of the reasons, is that in the area that I will show you here on the map there was a near fatality and a pilot boat sunk because of heavy seas at the place that they were trying to disembark. Why don't I show you right now what I'm talking about?

Mrs. BENTLEY. All right.

Mr. KELSO. This is Prince William Sound, the City of Valdez, and this is where the *Exxon Valdez* grounded. The pilot had disembarked, as was normal procedure, shortly after going through the Narrows. I think you are correct in this instance. Had that pilot continued on board past the reef, there would not have been this grounding. Interestingly enough, the pilot who had been on board is the president of the pilots' association.

What we are requiring is that there be State-certified pilotage out beyond this area, past Blight Reef, disembarking here. Originally the pilots continued out here to Hinchinbrook Entrance, where they are exposed to the full force of the Gulf of Alaska, storms and tremendous seas, but that was too dangerous. We have basically asked for State-certified pilotage to here, and the Governor has suggested to Secretary Skinner that there be federally-certified pilotage further down.

Mrs. BENTLEY. Have they resolved the problem of the boat, then? Do they have larger vessels for the pilots to use, or what?

Mr. KELSO. The Sound, the dynamics of the waves and the wind of the Sound are essentially here, and although you get some pretty heavy chop, it isn't the same as you get down here, so we think that will be safe, and the pilots concurred. The pilots gave us a list of recommendations, and we have approved all of those.

Mrs. BENTLEY. Thank you.

Mr. TAUZIN. Thank you, Mrs. Bentley.

Mr. Coble, any questions?

Mr. COBLE. Thank you, Mr. Chairman.

Mr. Kelso, as has been pointed out here earlier today, we are not interested in dispensing blame. We are looking to prevention, but in order to do that, we can't turn blind eyes to blame.

Now having said that, am I correct in concluding that in the first 72 or so hours, virtually nothing was done by anyone to remedy the situation, that is, collection, containment, dispersing, burning? Nobody did anything, is that an accurate statement, in that initial period?

Mr. KELSO. I think there was virtually——

Mr. COBLE. Pardon me just a minute, Mr. Kelso. When I say nobody, I mean Coast Guard, I mean Alyeska, I mean State of Alaska, I mean Exxon, I mean anybody in the fray.

Mr. KELSO. Well, let me give you a short picture of what was going on.

Mr. COBLE. And I am not barking at you, I am just barking, because I think we are all very annoyed about this, and I know you all even more than the rest of us down here.

Mr. KELSO. I appreciate that, Congressman, and I agree with you. We don't want to waste time with recriminations. We are interested in going on from here, seeing what we can learn from this, and getting this problem fixed.

Here is what happened during the first few hours. The vessel went aground right around midnight. The Coast Guard was contacted after that by the tanker, Commander McCall from the Coast Guard, who is the captain of the port, and indications were even then, after Commander McCall talked with Alyeska, that Alyeska said, "We are on our way with the equipment."

We had our staff person, Dan Lawn, on board on the deck of the tanker by 3:00 a.m. We had scrambled our staff from all around the State before Dan even got to the tanker, and they were on their way, and Dan was advised by Alyeska that they had the equipment on the way, as this plan specifies.

I have a staff person, for example, that is part of our team, who lives in Wasilla, which is a 6-hour drive over two mountain ranges, including a treacherous pass, that started driving from Wasilla. He managed to get through both mountain ranges, down to Valdez, got an aircraft, got out to the tanker, got on board the tanker, before Alyeska even arrived. Alyeska failed to deploy the teams that it had specified, the equipment that it had specified. They claimed they could get the equipment fully deployed and operating within 5 hours, even to an area further south than where this tanker went aground. That, of course, did not happen.

Our folks immediately began talking with the Coast Guard, because we sit on the Regional Response Team, and it was clear that we had to have some activity here. This was calm seas, perfect conditions, and that is when you can do the best in terms of containing the oil and picking it up.

One of the provisions in the contingency plan was that they would boom the tanker. That did not happen. The reason you want to boom it is because you contain it while you get your skimmers operating, so that you can pick up more of it before it starts to dissipate, and of course with calm winds it is a good time to do that.

When that didn't happen, our folks continued to assemble our team, and they of course had been assured that Alyeska was mobilizing. We then began to complain that we weren't seeing the equipment going into operation. Even after Alyeska arrived, basically they had two skimmers that they managed to get in the water, but they were not even operating in an effective manner. I am not criticizing the individual operators. There were a lot of people here who worked really hard on the ground, but the folks who were directing those didn't have them configured in a way that would get the job done, and they still hadn't boomed the tanker.

I arrived with the Governor and got on board the vessel at 4:00 p.m., and we observed what was going on, so when I returned to Valdez, I conferred with our folks. By the way, the Regional Response Team had met by this time. Around noon, I think, is when they met on the first day. We sat down and put in writing our concern right away. We said, "Look, there is not an adequate response here. Our team needs to reevaluate the capability of the responsible parties."

As the first part of day 2 started, Alyeska was passing the ball to Exxon, but they did so without consultation, and of course Exxon had no personnel, equipment, structure in place to handle this. That is the reason that Alyeska had the contingency plan.

Mr. **Coble**. So my conclusion is essentially correct. In the first 3 days, nothing was done. Does that get to the bottom line?

Mr. **Kelso**. The responsible parties did nothing. We continued our mobilization, because we could see that unless we did something directly, this was going nowhere. Bear in mind that the State does not have jurisdiction, so we can't come in and force Exxon to do something, or Alyeska, and as I understand Federal law, the Coast Guard can't do that as long as the responsible party is saying that it is going to do the cleanup and is making steps in that direction, so you have hit on a really serious point.

Mr. **Coble**. Admiral, did you want to be heard?

Admiral **Sipes**. Yes, sir, I wanted to add one point. Mr. Kelso, I believe, correctly addressed the question of containing the spill and cleaning it up. I would like to point out that the strike teams did come on scene on Saturday to begin to salvage the ship. That is to say, they came with pumping systems to pump the remaining oil off of the vessel, so it too didn't become a part of the incident, and in the course of just a few days pumped 42 million gallons of oil off of the ship to abate the source.

Mr. COBLE. Thank you, Admiral.

Mr. Chairman, one more question, if I may.

I mentioned this at this morning's hearing, and I want to get with Admiral Sipes and/or Admiral Yost or some other appropriate Coast Guard personnel about this, concerning the cleanup. Now I hear from when Exxon is quoted, the cleanup is going beautifully, but when other parties are quoted, the cleanup is going terribly. Now unlike an oil spill in Louisiana or Florida, you all are concerned about freezing, I presume, in late August, early September. Now how is the cleanup in fact progressing and how is it going to be when that water starts to freeze?

Mr. KELSO. This spill is still happening. The spill is continuing to move and is hitting new areas even now. They are the areas that you see furthest to the south there, and even areas off the map now, so the in-the-water cleanup was not done effectively. I don't think there is any way of sugar-coating that.

Where we are now is that the in-the-water work is more difficult because we have oil of very thick consistency. Some of it is in emulsion with water, what is called a mousse because it looks like chocolate mousse, and some of it is in tar ball form now and is washing up on beaches, but it is not as easy to clean up now, although cleanup in the water should still be conducted wherever it can be.

But what we are talking about right now as the area of problems is the shoreline cleanup. The reason you clean it up in the water is, not only do you want to protect damage from happening in the water, but as long as it is in the water, it keeps moving onto shorelines with every tide, and that is what it is doing now.

But for the shoreline cleanup, Exxon's original plan which Admiral Yost requested, and properly so, did not address areas outside of Prince William Sound. That means that the shoreline cleanup plan that exists affects only this area. All of this was omitted, and they also did not include information about in-the-water cleanup, a plan for in-the-water cleanup, or a plan for managing the waste that comes from this, so we objected to that and Admiral Yost asked them to supplement the plan by May 1st.

The May 1st plan came in, and I have a copy here if you are interested in it, but the May 1st plan also gave only lip service to the area outside of Prince William Sound. It said that the lightly oiled areas outside of the Sound would be left to Mother Nature to clean, and that only in areas that were accessible and that had tar balls would there be a cleanup. Well, there are eight communities outside of Prince William Sound that are affected by this, and we think that is not acceptable. We can't just ignore this area outside of Prince William Sound.

The other measure of how we are doing now is how much has actually been accomplished. There are hundreds of miles of oiled beaches that we are looking at here. Even within Prince William Sound there are 300 or more miles of oiled beaches. The amount that has been treated—and I won't say cleaned—but treated so far is less than 3 miles, about 3 miles, so we are way behind there.

Yesterday was the last day that activity on the marine mammal pupping grounds, the places where seal and sea lions give birth to pups, needed to be done. Actually you might want to say more about that. This is extremely important because newborn pups, if they encounter this oil, can be blinded, they can be killed, and so it is important that those areas be as clean as we can get them. Frankly, Exxon missed the deadline. The deadline was only a way of making sure we gave them some protection. The animals haven't necessarily started coming ashore to give birth, but we don't have much time, and if that isn't done, we are looking at some pretty severe impacts to those populations.

Mr. COBLE. Thank you, gentlemen.

Mr. EHLER. I would add one bit to the story of the marine mammals. There are five pupping areas within Prince William Sound. A concerted effort has been made by Exxon to clean up those areas because of the imminent coming ashore of the pregnant female sea lions and seals to give birth.

Because of this, and the level of activity that has gone on there and the cleanup deadline of May 10th, we expected considerable progress. Our scientists inspected those beaches yesterday, and three out of the five, the three that are composed of large cobblestones, are still seriously oiled, with animals offshore ready to come ashore to give birth. We expect substantial problems, at least in those areas, probably in the next several weeks.

Mr. COBLE. Thank you, gentlemen.

Thank you, Mr. Chairman.

Mr. TAUZIN. Thank you, Mr. Coble.

Mr. Goss from Florida.

Mr. GOSS. Thank you, Mr. Chairman.

I wanted to go back to some of the briefing materials we had on H.R. 2158, which is what we are trying to get at here today, and I notice there are a number of provisions which you spoke to, which have been spoken to by everybody here to one degree or another, and they are such things as requiring escorts for tank vessels in Prince William Sound and establishing an oil spill response team in Prince William Sound, repositioning equipment, additional radar coverage, additional pilotage, these types of things, which all seem to be very sensible.

I am sure there is a cost factor to them. Has anybody yet done any calculating on what this type of a plan might cost or what this type of legislation might cost, either on a matching basis or on any other basis, whether the State is going to pitch in or it is just going to be all Federal, or whether it is going to be passed on to the oil companies and eventually to the consumers? Does anybody care to respond to that?

Admiral SIPES. I can respond that we have not completed a total review of the bill in question. We have some ideas, as I suggested in my opening statement. Certainly the cost will be one of the factors.

Mr. YOUNG. Will the gentleman yield?

Mr. GOSS. Certainly.

Mr. YOUNG. We have some figures, that we figure it will be $250 million capitalization and $20 million a year to make sure this is implemented, from the industry.

Mr. GOSS. Has there been any additional analysis of State and Federal participation in that, or is it not necessary?

Mr. YOUNG. We expect this participation to be picked up by the industry. It will be by a tax.

Mr. GOSS. In toto?

Mr. YOUNG. In toto, and any additional monies the Coast Guard—we talked about this in the liability—it is my intent, if the gentleman will yield, my intent is to make sure that this is a burden upon those that produce and export the oil, not to the taxpayer. Eventually, believe it or not, the taxpayer is going to pay anyway. We all know that, but this is part of the price that we must bear as oil is produced on domestic waters and domestic lands to the consumer, versus what is imported into our harbors on foreign vessels that have no coverage at all.

As I mentioned this morning, this is the largest exporter of oil in any port in the United States. Twenty-three percent of our domestic production now comes through this harbor. I think it is long overdue.

I very honestly thought, as I mentioned before, thought we were keeping up. As the Commissioner said, there was a barge aground that was being repaired, the booms are about as big around as a silver dollar, the reaction team never got where they were supposed to be. It was a total Katzenjammer program. We are trying to avoid that through this legislation, not the cost directly of a tax or through an agency but through a tax on the industry.

Mr. GOSS. Thank you. If I may reclaim my time, Mr. Chairman, for a moment?

Mr. TAUZIN. You certainly may.

Mr. GOSS. Thank you. I think that is good. Does that seem like enough money? I realize you probably haven't talked to each other with regard to the dollars, so I will hold that, but once you do get those numbers, I hope you will be able to report back to us that indeed all these things we are trying to accomplish, with which I am in great sympathy, are doable for the dollars that we think they are.

I had one other question, if I may, if I may have the time.

Mr. Kelso, that same plan that you had, that you have held up there, the blue book, do you believe in that plan? Is that a doable plan?

Mr. KELSO. Evaluating the plan after the fact is somewhat difficult because it wasn't implemented in this instance, but in my view we need an additional measure of safety. We think that had the plan actually been implemented, we would be in a very different situation today. It would be much better, because the assumptions in that plan were almost identical to the weather conditions that prevailed throughout that first 72 hours, but we think that the margin of safety needs to be greater.

That is why I signed the emergency order, and that emergency order is just the first step. We are going to require a full review of the whole plan, and so I would expect that additional safeguards are going to be put in place. That is why the request that additional navigational aids and other safeguards, such as radar and radio contact, that the Coast Guard really has jurisdiction over——

Mr. GOSS. I haven't read the plan, but from your description of it, it sounds to me like there is a good deal of requirement on the company, on Alyeska in this case, to take certain actions.

Mr. KELSO. That's right.

Mr. GOSS. Are you prepared to throw in the sponge on that approach or are you going to still hold their feet to the fire, the people who are involved in the producing and the transportation of oil, or are you going to suggest a different approach, or do you know?

Mr. KELSO. That's a very good point. We are going to continue to try to strengthen this plan, and really it is going to be a different plan by the time those safeguards are all added, but your point is a good one.

The problem with it right now is that the whole system of contingency planning has limitations, and here is what I mean. Both the State and the Federal Government are really in reactive positions, at both planning and implementation. Right now the contingency plans are developed by the regulated entity, in this case Alyeska—and bear in mind that Alyeska is owned by others, including Exxon. Exxon is one of the largest owners of Alyeska, so there is a close relationship there.

But we are not in a position where we can impose requirements in that plan. What we do is, we have to react to the plan as it is given to us. That is not a very good way. The State or the Federal Government should be active in making sure that those plans contain certain things, meet certain standards, and our current authority doesn't fit that very well.

But the other problem is, if we ever have to implement, then, as in this case, a marine water spill, the Coast Guard has jurisdiction as the on-scene coordinator but the Coast Guard isn't in a position to step in and direct unless that plan isn't implemented or unless the plan gets all screwed up in the implementation. That means that we are behind the eight ball once they are able to step in, and of course we are not able to substitute our judgment either. The only thing we are able to do is to take independent action and start our own cleanup, which we did in this instance.

Mr. GOSS. Thank you, Mr. Chairman.

Mr. YOUNG. Mr. Chairman, one thing with the gentleman from Florida. In my bill there is the ability, and it gives the Coast Guard full authority to move forth with vigor and accomplishment, and if they don't, you have to come back before this Committee again. [Laughter.]

Mr. GOSS. Thank you.

Mr. TAUZIN. I thank the gentleman.

We will now move to some of our guests who are here from the Full Committee. First, Mrs. Unsoeld.

Mrs. UNSOELD. Thank you, Mr. Chairman. No questions. I just want to thank the gentleman, the distinguished gentleman from Alaska, for his thoughtful effort, which helps us think through what might be the preventive measures appropriate to consider for marine waters in Washington State, so thank you.

Mr. Tauzin. Over to another cosponsor of the Young proposal, Mr. Weldon.

Mr. Weldon. Thank you, Mr. Chairman, and let me commend you for your leadership in scheduling this timely hearing, and also commend my colleague, Mr. Young, for his leadership in putting forth this legislation which I aggressively cosponsored.

I accompanied my colleague, as I mentioned earlier, for a 5-day trip with the Secretary of the Interior to the site, visited the cities, and I was frankly appalled at what I saw and what I heard in terms of a combination of factors, all of which my colleague Mr. Young has addressed in his legislation.

I just want to reemphasize a couple of points. One is, I could not believe that we had not done the appropriate research into spill technology to the point where we were actually testing out various techniques, whether it be containment, whether it be whether to burn it off or to use dispersants, in the middle of an incident of this type. That just absolutely amazed me, that that was taking place.

In addition, in Kodiak we witnessed volunteers putting together new types of booms that actually absorb the oil, and these were actually citizens who had gotten together. I would have thought this would have been developed and researched long before an incident of this type actually had occurred.

The second thing that bothered me was the actual plan itself, and the fact that it seemed as though there was disagreement, once the incident occurred, between the various parties as to whether or not to implement all or part of it. I know that a lot of that won't come out until the full facts are out on the record, but a plan is no good unless everyone fully agrees to the inclusion of the plan and has the resources to implement it. I would have thought that this also would have not been the situation.

The reason why I guess that bothers me personally is that 14 years ago I had a similar incident occur in my home town, where I eventually served as mayor for 5 years, when a chemical-carrying tanker 700 feet long made a U-turn in the middle of the Delaware River and rammed a docked oil tanker with 300,000 barrels of Algerian crude broadside, killed 29 people and did $100 million of property damage. The lessons that were learned back then, 14 years ago, are the same lessons that we saw with the Valdez, only obviously the Delaware River is not as pristine as Prince William Sound, but the people's lives and the wildlife there are just as important as they are in Alaska.

So if anything, I would say that this legislation is absolutely necessary and that perhaps, Mr. Chairman and this Subcommittee, we can even broaden it beyond this to include all of our country, in looking at the response plans in place, the resources necessary, the research to deal with oil spills, and more importantly, the control.

What bothers me in this hearing today is the fact that we are hearing that we don't know really if anyone had control. It has always been my assumption—and I will ask the Admiral to respond to this—it has always been my assumption that the captain of the port has the ability and the authority to take what measures he feels are necessary to control the situation. Is that correct or not, Admiral?

Admiral **Sipes**. Yes, sir, except in the case of the Alyeska plan. The Alyeska plan is unique among contingency plans. It is the one place in the country that I know of that what you said is not precisely so.

Mr. **Weldon**. And Congressman Young's bill would take care of that, correct?

Admiral **Sipes**. I believe so, as written.

Mr. **Weldon**. That's fine, because that is the one thing, and I think we have to reinforce that and give the Coast Guard and their captains of the ports the appropriate resources to handle these kinds of situations.

One other point, I think, of commendation. I think my colleague will agree with me. In talking about planning, we saw one very real example of how a plan can be implemented successfully. We visited Kodiak, and we had a briefing by the Kodiak elected officials, I believe it was the mayor and all the agency reps that were there. Mr. Commissioner, you can take back to your Governor that you should be proud of the people in Kodiak. They know how to devise a plan and, more importantly, they know how to implement it.

I made the suggestion there, and I will follow it here in this Subcommittee, that that plan and the implementation by the City of Kodiak and all the agencies working together should become a national model, because they did more, just in the briefing we got from the short time we were there, to protect their fisheries, the economy of their area, and to deal with the problem than any other situation I have come in contact with. So if there is one bright spot in this entire situation, I would say what Kodiak did in dealing with its own unique impact is certainly a model for all of us to follow.

Thank you again. I yield back any time that I might have had.

Mr. **Tauzin**. Thank you, Mr. Weldon.

I wouldn't miss this opportunity, however, to point out to you that while the bill calls for an authorized $5 million for the Coast Guard to conduct some of the fine features of the bill, and $3 million for the Maritime Administration, we are hearing from the Budget Committee that the Coast Guard is going to be slashed $500 million, half a billion dollars.

While we are all, of course, anxious to see the situation in Alaska improve with increased Coast Guard surveillance and equipment and monitoring and outreach strike teams and all the other good things that are going to happen, none of it will happen if this Nation isn't willing to commit more of its resources to our Coast Guard, which is indeed the guardian agency of our Nation when it comes to hazardous cargos and spills.

I am not going to miss the opportunity here and everywhere we can, and I ask your help to remind this Congress that we are going to be sitting at these kinds of hearings every year there is a spill, complaining about how nothing was done timely, if we don't cure that one problem first. It will do us no good to complain or point fingers if in the end we have not properly resourced our Coast Guard.

Mr. Pallone is recognized.

Mr. **Pallone**. Thank you, Mr. Chairman.

I couldn't agree with you more. I noticed when we had the budget resolution on the floor about the cuts with regard to this Committee, and I was very concerned about that, too.

I just wanted to add to what the gentleman from Pennsylvania said. When I listened to Mr. Kelso and also Mr. Young with regard to this legislation, I think that many of the provisions or many of the suggestions that are in this bill or that were brought out by Mr. Kelso really apply to many other harbors.

I had the opportunity about 2 or 3 weeks ago to go into the New York Harbor and do a tour and look at their whole contingency plan, and I was really shocked to see the effect of cutbacks in funding for the Coast Guard. For example, in New York Harbor we don't even have a vessel traffic system any more, because that was cut out last June for budgetary reasons. When you talk about navigational systems and the need to expand radar, we don't even have a mandatory check-in system or any kind of vessel traffic system in place now in New York Harbor.

I think the types of things that are being brought up in this legislation, also with regard to requiring that vessels have certain equipment on board, a lot of these things really do have general application and would apply just as easily to New York Harbor, in the event of a collision or some of the other types of mishaps that we could face. So I am glad to hear that we are looking at this not only in terms of Alaska and the Port of Valdez, but also in terms of other ports and harbors around the country.

Thank you.

Mr. TAUZIN. Mr. Pallone, thank you, sir. You have pointed out something we pointed out this morning in the earlier hearing. New York and New Orleans VTS were terminated simultaneously, and while oil is an awful product to have in your waters and on your beaches, you ought to have some of the chemicals we are exporting and importing through ports like New Orleans and New York. While I love wildlife, I really do—I grew up in the wetland areas of Louisiana, and you can't help but feel close to nature if you grew up there—we are also talking about the lives of millions of people here without a VTS system.

This Committee will, in all probability, before very long be scheduling a focused hearing on New York and New Orleans, in dealing with vessel traffic safety and how it applies to other parts of America. It may not work perfectly but at least you had a VTS in Prince William Sound.

That ought to frighten the dickens out of enough people, that perhaps they are willing to stand up and be counted the next time somebody suggests cutting the Coast Guard the way they did a few years ago and the way they are suggesting we do it again this year, as we begin to launch, by the way, the most aggressive war on drugs—with who in command?—with the Coast Guard in command—that this Nation has ever attempted to launch.

Thank you very much, Mr. Pallone.

Thank you all for being a part of this panel. Mr. Kelso, you particularly have our best wishes, because we in States like I represent, Louisiana, know full well the trauma the people of your State are going through. Thank you.

Mr. KELSO. Thank you, Mr. Chairman.

Mr. TAUZIN. Our second panel will please assemble. Dr. Carl Oppenheimer, the University of Texas-Austin, Department of Marine Studies, will discuss alternate cleanup approaches with us.

For the record, we had requested National Research Council participation in this hearing, particularly in light of its studies with regard to the use of dispersants. Because we only just became aware of their study, we did not get our request in in time and they were not able to participate. But we will again, as I said earlier, be focusing upon that study and how it applies to the application of contingency plans, once adopted.

Dr. Carl Oppenheimer, University of Texas-Austin, Department of Marine Studies.

STATEMENT OF DR. CARL H. OPPENHEIMER, UNIVERSITY OF TEXAS-AUSTIN, DEPARTMENT OF MARINE STUDIES, ACCOMPANIED BY HON. DAN KIRKENDALL

Mr. OPPENHEIMER. Mr. Chairman, I particularly wish to thank you for the invitation to present views on a biological method of removing excessive oil from aquatic environments. In order to allow the Members of the Committee to have more time for questions, I would like to ask that my written statement on bioremediation for oil spills be placed in the record, and that I be allowed to briefly summarize my approach to the current problem in Alaska.

Mr. TAUZIN. You are not only allowed, sir, you are urged with great dispatch.

Mr. OPPENHEIMER. Thank you, sir. I am accompanied by the Honorable Dan Kirkendall, who is my colleague in the Alpha Environmental Company, and I ask your indulgence in referring certain nonscientific questions to him.

Mr. Chairman and Members of the Committee, there is an old saying that in order to properly communicate with a group, you tell them what you are going to tell them, and then you tell them what you told them. With your kind indulgence, I will take the first of these steps in my summary.

Mr. Chairman, my associate and I are not here to discuss future research on this project in the form of grants for either laboratory work or field demonstrations. We ready to proceed to field remediation immediately, with time-proven technologies, to achieve previously proven results.

We do, however, fully respect the fact that in the matter of applying microorganisms for oil pollution control, and most particularly in the matter of lasting effects on the environment, we feel that this Committee and the whole Government deserve evidence on-site that the cleanup of oil pollution can be accelerated using biological methods.

For that reason, we have proposed that we conduct laboratory demonstrations in Austin, Texas, and then to prove no possible residue in the environment, a bioremediation program to 3 miles of representative shoreline and adjacent waters in Alaska, to demonstrate our capability to degrade the type of materials that have washed ashore and are in the adjacent waters. Immediately upon demonstrating this capability, we wish to move towards cleaning 100 miles of shoreline or more.

Mr. Chairman, I have spent my entire academic, consulting, and business career as an active marine ecologist and environmentalist. In 1969 I was appointed by President Nixon to be part of the President's Oil Pollution Panel to study and make recommendations on the Santa Barbara oil spill which occurred in that year.

When I recall the conditions, the problems, the sense of futility that permeated all parties proposing procedures and remedies at that time, and in all major and minor subsequent oil spills since, I am further reminded of the absolute necessity to see that this is the last major oil spill in which there is no true and timely, productive cleanup response. Physical and chemical techniques generally only change the problem. They do not eliminate it. Biodegradation, a natural process, is one of the only applied mechanisms that can remove oil per se, through a process of natural oxidation.

Mr. Chairman, in 1973, as the result of my observations on the Santa Barbara panel and continuing 4 years of research on bioremediation, I arranged a controlled spill demonstration on a small salt water pond south of Corpus Christi, Texas, to demonstrate the capability of biologically using selected effective bacteria to degrade an oil spill. This test was approved by the Environmental Protection Agency and supported logistically by the United States Coast Guard.

However, we were forced to cancel the demonstration by the threat of a $10,000 fine if so much as one bird was touched by the oil. In retrospect, I realize I should have contested the decision by the Fish and Wildlife people and arranged methods to keep the birds away during the demonstration, and then proved to them by the results of the demonstration that our technique could well prevent the death of thousands of marine birds and mammals in succeeding years.

Mr. Chairman, the ecology of this Earth has within its own capability the capacity to recycle virtually all of its known biological elements, including natural and man-introduced hydrocarbons. It is only when this capacity is temporarily overloaded that we have pollution such as the oil spill in Alaska. These very Alaskan waters, from which we have obtained many of our oil-eating microorganisms, have a stable, balanced ecosystem that is capable of digesting a finite amount of hydrocarbons each day. Obviously that capacity is now vastly overloaded.

In the very simplest terms, Mr. Chairman, our method of selecting and cultivating oil-consuming microorganisms, combined with our productive capability for volumes of concentrated bacteria in powder form, enables us to temporarily increase the population of naturally occurring oil-eating microorganisms, high above the normal levels that exist, so that they may digest the excess oil that is present. After the oil is gone, the bacteria, whose only diet was oil, will immediately disappear or be diluted due to the lack of nutrition and the physical conditions of the area.

There can be no harmful residue effects of this method. It is simply the same system used by nature throughout the Earth every single day. Fifteen years of observations of toxic effects, of degrading a wide variety of crude oils, both in the laboratory and in the field, on shrimp, fish, and shellfish, has also indicated no apparent toxicity.

Mr. Chairman, I will now respond to any questions.

[The statement of Mr. Oppenheimer may be found at end of hearing.]

Mr. **Tauzin**. Thank you very much, Mr. Oppenheimer.

Have you had any success in achieving the possibility of a real-world demonstration, in Alaska, of your microbial techniques?

Mr. **Oppenheimer**. We have run five field tests in controlled natural systems, one in Corpus Christi, one Galveston, one in Canada, and two in Italy. Most of them had approving committees from various government agencies and industry. The one in Corpus Christi was observed by both the Coast Guard and EPA. Under all of these circumstances, the cleanup was evident after about 3 to 4 hours.

Mr. **Tauzin**. Let me rephrase it. Have you made any efforts to demonstrate this technology in Alaska, this cleanup?

Mr. **Oppenheimer**. No.

Mr. **Tauzin**. Has anyone invited you to?

Mr. **Oppenheimer**. Would you re-ask that question, please?

Mr. **Tauzin**. I was asking, have you made any attempts to demonstrate this technology as it would apply to the cleanup in Alaska?

Mr. **Oppenheimer**. My answer has to be yes, because my colleague, Dan Kirkendall, has been working for several weeks to show how this procedure may be useful in Alaska.

Mr. **Tauzin**. What reaction are you getting? Are people just not interested, are they not listening, or what is happening?

Mr. **Oppenheimer**. I will defer that to Mr. Kirkendall.

Mr. **Tauzin**. Would you please, sir?

Mr. **Kirkendall**. Mr. Chairman, this is quite an unusual experience for me as a consultant here in Washington. I have had absolutely nothing but attempted cooperation. The entire staff at EPA, including the administrator's staff; the Department of Emergency Response; the Secretary of the Interior and the Fish and Wildlife people are working with us; both Senators and the Congressman.

We are in a position, as far as being able to demonstrate a technology, of requiring a temporary suspension of certain administrative procedures. This is one of the reasons we are so interested in Congressman Young's bill. It is almost as if we have a wartime situation, and regulations prevent us from using a product that has not yet been fully demonstrated on an ocean during wartime, and we certainly can't do it in peacetime, so we have handcuffs on us.

Virtually all of the Government agencies, in fact every one, even including the Department of Defense, have asked, "What can we do to help?"

Mr. **Tauzin**. All right, let me get right down to it: If in fact we could scrap the red tape and put you to work in Alaska right now, what could you do for us?

Mr. **Oppenheimer**. We are ready to respond. I was at a meeting three weeks ago with the Environmental Protection Agency and offered to deliver 50 tons of microorganisms, which would seed several miles of coastline. The application is very simple. We can use the intertidal phenomenon and offshore boats to spray a salt-water solution of our microorganisms, which we can deliver in powdered form at very high concentrations, and allow the natural process to proceed.

Mr. TAUZIN. Well, why isn't it being done? What is stopping you?

Mr. OPPENHEIMER. I will defer that to my colleague. I think it is mostly a business problem.

Mr. TAUZIN. Is it just that it is not a proven technology yet, and there is too much red tape, and nobody is sure it works, and nobody wants to buy it until they know it works?

Mr. KIRKENDALL. Almost immediately after the disaster, we presented to Exxon, which was received with great cooperation, an effort to clean up 15,000 acres of at that time open water. Almost immediately we were told by Exxon that they simply could not use a process that had not been previously approved and demonstrated by EPA. We got no objection from Exxon about the process. It was simply, "We are not allowed to use it."

So the EPA has regulations on the use of processes or products that have not had full-scale commercial demonstration, and therefore any breakthrough technology simply, under the present regulations, unless we get an Executive order, cannot be used.

Mr. TAUZIN. All right. Let me ask, I guess, some way-out questions: Could your microbes go do some other bad things over there that they are scared of? Would it hurt the other marine life, or would it create conditions in the Alaskan environment that might have detrimental effects? Is that what they are worried about?

Mr. OPPENHEIMER. That is one of the worries, and we have tried to dispel that very simply by stating that the organisms that we used are natural. Some of them I collected from Cordova about 3 or 4 years ago.

Mr. TAUZIN. They are natural organisms?

Mr. OPPENHEIMER. They are natural organisms that have been——

Mr. TAUZIN. You haven't spliced any genes and created any little Martian bugs out there or anything?

Mr. OPPENHEIMER. No, sir. We believe that——

Mr. TAUZIN. These are all American bugs that we find naturally in the environment in Alaska?

Mr. YOUNG. Better than that, they are Alaskan bugs.

[Laughter.]

Mr. TAUZIN. Alaskan bugs.

Mr. OPPENHEIMER. You see, the process of natural oil degradation occurred when life began. That is about 3.5 billion years ago. If that did not occur, oil would be everywhere.

Mr. TAUZIN. I read your paper. Sure.

Mr. OPPENHEIMER. And so all we have done was to take a natural process, natural organisms that we have collected not only in Cordova but many places in the world. We grow them in sea water, which helps us eliminate the possibility of human contamination, and also 98 percent of all the waters on the surface of the earth are sea water. We grow them only on crude oil. We have selected them so that they stay in the oil. We process them in very large concentrations, 10 to the 12 cells per gram. Even you in Congress know what 10 to the 12 are, because——

Mr. KIRKENDALL. That's a trillion.

Mr. TAUZIN. Something like the deficit, right?

[Laughter.]

Mr. OPPENHEIMER. Right.

Mr. **Kirkendall**. A third of the deficit.

Mr. **Oppenheimer**. And so we have an extremely concentrated group of organisms that eat only oil, and so when they are finished consuming the hydrocarbons, they die because there is no food left for them.

Mr. **Tauzin**. They wouldn't go out looking for some oil, I mean like around Prudhoe Bay or something

[Laughter.]

Mr. **Kirkendall**. If they could do that, we would follow them.

Mr. **Oppenheimer**. Yes, if they could do that, we would follow them, but you know, this process of cleaning up oil spills is not the major process of Alpha Environmental which Dan and I are working with. We are primarily interested in using microorganisms for secondary oil recovery. We inject the microorganisms down into the formation. We have been very successful. We are treating our eighth oil field. We have a Department of Energy contract to work with Teapot Dome, and we have been successful in that up to this period of time, and so we already have the capability of growing the organisms.

Mr. **Tauzin**. Teapot Dome, is that the same as the scandal?

Mr. **Oppenheimer**. In Wyoming, right, in Wyoming.

We have the organisms for other purposes like waste disposal and septic tanks, grease traps.

Mr. **Tauzin**. Those are all approved?

Mr. **Oppenheimer**. We are using those continuously.

Mr. **Tauzin**. Oh, you are using those? What we have not yet approved at EPA——

Mr. **Oppenheimer**. Right.

Mr. **Tauzin**. ——is the use of these microbial techniques in oil cleanup.

Mr. **Oppenheimer**. We can use them in septic tanks, which go into the natural environment, but we can't put them in the natural environment, which is rather an interesting——

Mr. **Tauzin**. I am going to turn this over to Mr. Young. This ought to be interesting. Mr. Young.

Mr. **Young**. Thank you, Mr. Chairman.

I am just excited about this concept. I have done a little research on the gentleman at the table, and he is legitimate. I am not sure about my former Member there, but he is, too. I say that with jest.

This is an example, though, where we have gone in this Government, Mr. Chairman, where we are regulating ourselves to death. All I can suggest out of this is, if everything that is reported is correct, and I believe it is, we ought to look at the possibilities of somehow, in an emergency situation such as this, allowing this type of effort to occur without having to go through this whole ring of paperwork.

I was going to ask the Commissioner and the Coast Guard. You know, doctor, the Coast Guard now has directed Exxon to put an additional 2,000 more employees on the beaches of the oil spill, to clean the oil spill up. Well, unfortunately, some of them are going to be exposed to oil, and there are going to be some long-range effects to that, but I personally don't think they will be able to clean the oil up. And frankly, you put 3,000 troops in an area, the damage they do many times is more harmful that what your little bugs will do.

I think we ought to, in this legislation, really look at the possibility that in an emergency, if it hasn't been proven, we use every technique available to us so we can get it done. I don't know all the ramifications, but I know this: If they are talking about sealing islands and whelping islands and this type of thing, and yet we are not using one of the things that works, we are just not being very forthright with it. I have read his book, his presentation, and I really think that we have something here if we can just figure out how to get EPA and everybody off the dime. I have even talked to the Secretary about it, and he is very interested and very sympathetic. It's just that the paperwork has him bogged down. So I have no questions about it. I think it will work.

Mr. OPPENHEIMER. Well, let me make one more remark that I think is very pertinent here. Our process primarily was designed to work on the water. We initially developed this after the oil spill incident in Santa Barbara, with the idea that if we added a concentrated group of organisms at the site of the oil spill, the bacteria being designed to stay within the oil, they would spread with the oil and continue their activity.

Now in the several weeks that have elapsed since the Valdez spill, the oil has undergone quite a bit of physical change. It has moved towards a more tar-like material. We have been very successful in cleaning up similar conditions in tar pits in Louisiana and in Colorado, using our process, so there is evidence that we can break down these materials, that are about the nastiest materials that you can put in the environment, because it is tar-like and very difficult to break down.

Mr. YOUNG. Doctor, along those lines now, you know we have many miles of beach, some highly concentrated areas. If you were allowed to take the two or three islands that are really heavily impacted—and we have what we call new oil coming from beneath the surface, actually soaked in when it was in crude form. It hasn't gone into tar form, but it keeps coming back because it floats to the top of water, and the tide goes out and back and forth.

If you were to be able to apply your bugs there—and for the Chairman, we have another mine in Alaska, and it produces molybdenum. I can't say that, so I say "moly," so I am going to call your microbes "bugs." We will do it the simple way. If you were to be able to apply them in those concentrated areas, how long would it take for them to eat that oil up?

Mr. OPPENHEIMER. We believe that in probably 3 to 4 months you should see some effect. I will know better after I have gotten the samples that were supposed to be sent to me, because I plan to test that in my laboratory at home.

Mr. YOUNG. So if you were to apply that 50 tons of stuff to those—and really 3 miles or 5 miles doesn't sound like much, but there are some real concentrated areas that are going to take forever to clean up with the system we are using today—you think by September we would have most of that oil consumed?

Mr. OPPENHEIMER. In the test site. Now my colleague tells me that in the second phase, if we can show in our laboratory that the microorganisms do indeed remove the oil from the rocks and the materials that are going to be supplied to me, then we are prepared to treat 100 or more miles. We can treat 100 miles with one week's product from our laboratory.

Mr. KIRKENDALL. Let me comment, if I may, Mr. Chairman. We can be on-site in Alaska in less than 10 days with that quantity of product.

Mr. TAUZIN. That is interesting.

Mr. Laughlin from Texas.

Mr. LAUGHLIN. Dr. Oppenheimer, did I understand that you have tested your microorganisms in any type of oil spill in the Gulf of Mexico?

Mr. OPPENHEIMER. Yes. Yes, we have.

Mr. LAUGHLIN. And were there any government agencies, either State or Federal, that were involved or that supervised or witnesses any of that?

Mr. OPPENHEIMER. The test was monitored by EPA, the Coast Guard, and the Port Authority of Corpus Christi.

Mr. LAUGHLIN. And which oil spill would that have been, and the dates?

Mr. OPPENHEIMER. Now this was one of the simulated oil spills, where we went into the Corpus Christi Harbor, boomed off a section of the area, and artificially spilled the oil, added the microorganisms, and then watched the results.

Mr. LAUGHLIN. And what measurement——

Mr. OPPENHEIMER. It was about 100 square—I guess about 100 square meters.

Mr. LAUGHLIN. How many barrels of oil did you spill in your test?

Mr. OPPENHEIMER. We put oil on it to an extent of about one-sixteenth of an inch.

Mr. LAUGHLIN. And for your test purposes, what measurement of time did it take your microorganisms to eat up or dissolve the—I guess eat up or dissolve the oil?

Mr. KIRKENDALL. Eat them up.

Mr. OPPENHEIMER. The Coast Guard declared it officially cleaned up, so that we could remove the booms, in 4 hours.

Mr. LAUGHLIN. And how many barrels was that?

Mr. OPPENHEIMER. You can't measure it in barrels because it was a film, one-sixteenth of an inch on the water. I think at that time it was 10 gallons of oil in 100 square meters.

Mr. LAUGHLIN. And what was the date of that test, just the month and the year?

Mr. OPPENHEIMER. This was in August of 1973.

Mr. LAUGHLIN. Was your process even considered when they had the big Mexican offshore rig oil spill that—

Mr. OPPENHEIMER. I was a consultant to PEMEX for that IXTOC oil spill and I made several trips down there, but unfortunately—the United States is the environmental leader of the world, and we find this to be true in Italy, as well—if the Environmental Protection Agency has not approved of an item, it is very rare that you can get anyone else to approve it. The Mexicans listened, but they said, "Have you approved it in the United States? You're growing it in the United States."

My colleague mentioned that it has only been recently, when we have joined two different types of technology, that we have been able to produce the numbers of organisms that we are able to do today, so I guess the answer to that is that even if IXTOC had allowed us to use microorganisms, we at that time did not have the technology to produce the quantities that would be needed.

Mr. LAUGHLIN. What is the approximate cost of this 50 tons of microorganisms that are proposed to be use in the Alaskan cleanup?

Mr. OPPENHEIMER. I will defer that to Mr. Kirkendall.

Mr. KIRKENDALL. The original request, it was a semiofficial offer to clean up the 15,000 acres, which would have been on the surface of the water and does not take but 10 pounds per acre, was bid in at $6 million. That would have, at that time, encompassed a large part of the total spill. Now we have an unofficial offer in to EPA to clean up 100 miles of shoreline and adjacent water, which you remember is a lot tougher, a lot thicker, and takes about five or six times as much product per square meter or what have you, for $3.5 million. Compared to anything else, it is inexpensive. Probably the entire cleanup of 100 miles of shoreline would take about 2 days' budget for what they are spending right now.

Mr. LAUGHLIN. Did I understand you to say these microorganisms are natural to the environment of Alaska.

Mr. OPPENHEIMER. Some of them are, yes.

Mr. LAUGHLIN. And from your testing and studies and research, you are assuring us that they won't run away and create other monsters?

Let me tell you where I am coming from. On the Gulf Coast of Texas where I am from, some years ago some very brilliant people brought in a little animal from some other foreign land called a nutria. It was going to clean up our lakes and our streams, and now they have—they haven't attacked any humans, but they have become a real nuisance. They are more of a nuisance than the water weeds we were trying to get rid of.

That is my concern. Where is this microorganism going to go or take us after it eats up the oil?

Mr. OPPENHEIMER. The natural growth of a micro-organism is what we call adventitious. They are essentially put in our life system to recycle materials. The bacteria that we select for oil degradation are those that recycle the natural oils that are introduced into the environment through living systems and through accidents and natural oil seeps. They are always present in a fairly low level, but they are limited in their response by certain factors such as nutrients, nitrogen, inorganic nitrogen and inorganic phosphorus. What we try to do is to accelerate that natural process.

In 15 years, in my demonstrations where I would have, if I did a demonstration here, I would have two aquaria, one here and one here. One of them would be a control. The other, we would put oil on the surface and bacteria. In almost all of these tests we put three species of organisms: shrimp, small fish, and shellfish, usually oysters or mussels, to demonstrate the fact that the material from that specific crude, because we used specific crude oils, was not toxin. We have never had any indication of toxicity with crude oil.

Mr. LAUGHLIN. Thank you, Dr. Oppenheimer.

Mr. Chairman, that's all I have. Thank you very much.

Mr. TAUZIN. Thank you, Mr. Laughlin.

Mr. Carper, do you have any questions, sir?

Mr. CARPER. No, I don't.

Mr. TAUZIN. Mr. Oppenheimer, are you related at all to the famous Dr. Oppenheimer who invented the big one?

[Laughter.]

Mr. OPPENHEIMER. No, sir. I am the infamous one.

Mr. TAUZIN. You may have another big one here, just thinking about it.

A question relative to the experience you have had already with Coast Guard and EPA observers: Have you received fairly good comments or reactions from the Coast Guard and EPA observers who have watched your experiments?

Mr. OPPENHEIMER. I will have to defer that to Mr. Kirkendall.

Mr. TAUZIN. Mr. Kirkendall?

Mr. KIRKENDALL. We have not yet approached the Coast Guard, because when the President pretty much reassumed the responsibility for Alaska, he designated EPA as pretty much the center of the science. Now even though we are fully aware that the President of the United States could issue an Executive order——

Mr. TAUZIN. Sure.

Mr. KIRKENDALL. ——however, we feel like we owe it to the country, to you, Mr. Chairman, and others, through our due diligence in developing ways to show that the product cannot be harmful to the ecology. So, Mr. Chairman, the entire slowdown right now is the process of proving that.

Now Mr. Young's bill can help us put the focus on the actual point of whether or not we damage anything, so the answer is, the EPA, excellent cooperation at every level. The Coast Guard has not yet been approached because they would have to ask us the same thing, and return us on the science, so we don't expect anything but good cooperation from Coast Guard when the time comes.

Mr. TAUZIN. From what you know, Mr. Kirkendall, could Exxon buy your technology without EPA approving it? Could they legally do that?

Mr. KIRKENDALL. They could buy it. I don't think they would be allowed to use it.

Mr. TAUZIN. They just would not be allowed to use it, in your opinion, without EPA approval?

Mr. KIRKENDALL. Not without that approval. I am convinced of this, because of the response I got.

Mr. TAUZIN. Well, we thank you very much. Mr. Kirkendall, I hope you appreciate the fact that as a consultant former Member of this body, you got treated a lot better than have other consultant former Members who went to the Senate recently, so we appreciate your being around.

[Laughter.]

Mr. CARPER. Mr. Chairman?

Mr. TAUZIN. Mr. Carper?

Mr. CARPER. Could I ask just one question, please, before the witnesses leave?

Mr. TAUZIN. Yes, you certainly may.

Mr. CARPER. Thank you.

I am reading on page 12 of your testimony, doctor, and I read that when the pollutant food source is gone, the oil-degrading bacteria die off. That is what I read here.

Mr. OPPENHEIMER. Yes.

Mr. CARPER. When I think of other animals, if you had polar bears out there floating and dying off, their carcasses would create a problem. If you had seals or fish or other kinds of mammals or fish, their dying and being in the water would be a problem. I know we are talking about little critters here, but I presume we are talking about a lot of little critters dying off. When they die off, what remains?

Mr. OPPENHEIMER. Well, in the normal pathway that nature has derived, anything that dies is recycled. Microorganisms are normally responsible for that recycling. Sometimes they get a little ahead of themselves, and we call that a disease, but we have been very careful to use a sea water medium that excludes that possibility. Our oil-eating microorganisms I do not think compete with the natural population that are there to recycle the dead larger organisms.

Mr. CARPER. All right. Thank you.

Mr. TAUZIN. Thank you very much, Mr. Carper.

Any other questions?

[No response.]

Mr. TAUZIN. Then we very much appreciate your testimony, Mr. Oppenheimer. We will be following this with great interest, sir. I think there is a great potential here, and one we ought to continue exploring.

Thank you, Mr. Kirkendall.

Mr. KIRKENDALL. Thank you, sir.

Mr. TAUZIN. We will now go to the next panel, which will be the fishing and maritime labor witnesses: Ms. Riki Ott, John Bobb, Captain Pat Neely, and Ed Kelly. I will ask Mr. Greg Laughlin to assume the Chair temporarily while I attend to some duties outside. I will be back with you in just a little bit.

Would the next panel please assemble? Again, gentlemen, remember that your written testimony is automatically a part of the record by unanimous consent. We will ask you to summarize your statements and then prepare for a round of questions. Thank you very much.

Mr. LAUGHLIN [ACTING CHAIRMAN]. Gentlemen, who is going to proceed first? Okay, Captain Neely.

STATEMENT OF CAPTAIN PAT J. NEELY, JR., PRESIDENT, AMERICAN PILOTS' ASSOCIATION; ED KELLY, VICE PRESIDENT, DISTRICT 2, MARINE ENGINEERS BENEFICIAL ASSOCIATION

Captain NEELY. Mr. Chairman, my name is Pat Neely. I am president of the American Pilots' Association. It is my pleasure to be invited here today to testify on Mr. Young's H.R. 2158. I want to thank all of the Members of this Committee for their dedication in holding timely hearings to make a safer marine environment. Also, I would like the record to reflect that I also appreciate all of the staff, not only from the Subcommittee but the Full Committee, for their untiring efforts and willingness to assist in the preparation of these hearings.

Although not testifying today, I have in the audience here two distinguished Louisiana pilots from the Crescent River Pilots, Captain Marc Delestinere and Captain Doug Grubbs, who are here to show their interest.

In addition to commenting specifically on H.R. 2158, I will attempt to provide some information for the benefit of the Committee on the pilotage of the Alaskan North Slope oil ships in Prince William Sound and the activities of the State pilots there with respect to the *Exxon Valdez*. My written statement has been entered, and if it would please the Chairman, I would like to summarize.

Mr. LAUGHLIN. Please do, without objection.

Captain NEELY. The American Pilots' Association is a national trade association, 105 years old, representing State-licensed pilots in all of the coastal States of the United States, also Alaska and Hawaii, and we have the three registered pilot groups representing the Great Lakes. Among the members of the American Pilots Association are the Southwest Alaskan Pilots.

I am more than happy to say that if there is one bright light at the end of the tunnel in this whole fiasco, it is the performance of the State pilots, the Southwest Alaskan Pilots. Number one, the pilot did perform his duty. He took the ship safely to the discharge point, whereupon he ended his tour, and subsequent to that the ship was grounded.

Immediately upon finding the ship aground, the information coming to them, the pilots realized that the waters where this ship had gone aground were uncharted. Knowing full well that there was need for relief vessels to unload the stranded ship, they took their pilot boat, went in, made soundings, got to the point where they felt comfortable that they could bring a ship alongside.

Mr. Chairman, they did that. They not only charted the area, they themselves were responsible for getting the ship alongside the stranded vessel. This happened to two 80,000-ton ships and a third 45,000-ton ship. Each pilot stayed aboard while the operation happened. They saw to it that the ship was removed from the side of the stranded vessel, and ultimately the pilots were aboard when the ship was lifted from the rock. They themselves took it to a safe anchorage, where the vessel is now making temporary repairs.

Obviously the Committee is well aware that State pilots are a very necessary and essential function for the operation of safe maritime navigation. Navigation safety is the reason that pilotage exists, and the essential function of a pilot is to assist ships in the safe transit of this country's ports and the navigable waterways. Over 135 years ago the Supreme Court recognized that a pilot is charged with the safety of the vessel and the cargo and the lives of those on board.

Throughout history, the American Pilots' Association has supported stringent licensing. We continue to advocate that. We are distressed, as a matter of fact, that the Department of Transportation since early 1980 has seen fit to attempt to reduce pilotage requirements, and I am quite pleased that Mr. Young's bill recognizes the fact that the local State pilot who is on scene every day, a local resident making the passage every day, is the ultimate in safe navigation.

We have one small problem with the bill, and perhaps with some help from the staff we might try to think very seriously about the 10-year period in the event that there is something with alcohol-related sanctions, for helping the youngster who might be swayed at an early age to have a couple of drinks and then have some sort of a little minor conviction on his record. He might want to go into the maritime field. Ten years later we find that he can't do that. I think the time frame is a little bit harsh.

We understand that there has to be competition among pilots, but a pilot who holds a State license also holds a Federal license, and we extend the services of the pilotage for the benefit of the ship and the shipowner.

I reiterate that the circumstances of the Valdez accident provide a dramatic demonstration of the crucial role that humans play in safe navigation. No matter how much technology a modern ship may have, the safe navigation of that ship still ultimately depends on the qualifications and performance of the individuals on the bridge.

I would hope that members of the other coastal States might follow suit with Mr. Young's bill, that there always be a qualified local pilot, ready and able to assist any vessel that might come into our ports. We talk specifically about the circumstances in Valdez, and our heart goes out for the suffering that these people have encountered. However, this crude oil is not restricted to the one area. This crude oil is coming in and out of all the ports in the United States that have refining capacity.

We understand that this vessel was bound for Los Angeles, and the State pilot requirement was not triggered. However, inasmuch as we can see the results of a perhaps sometimes less qualified person getting us into the predicament we are in, we think that Mr. Young's bill goes a long way to satisfy safe navigation.

Mr. Chairman, I appreciate having the opportunity to testify. I would be more than willing to answer any questions.

[The statement of Captain Neely may be found at the end of the hearing.]

Mr. LAUGHLIN. Thank you, Captain Neely.

Is anybody else on your panel going to testify?

STATEMENT OF MR. JOHN BOBB, ACADEMIC DIRECTOR, MARITIME INSTITUTE OF TECHNOLOGY AND GRADUATE STUDIES, INTERNATIONAL ORGANIZATION OF MASTERS, MATES & PILOTS;

Mr. BOBB. Yes. John Bobb from the Masters, Mates & Pilots. I am here on behalf of Captain Lowen today, and I really do intend to summarize.

[Laughter.]

We are in general agreement with the bill. We do have a couple of comments we would like to make about the manning on the vessel. This ship operates with 19 people. Prior to, I believe, 1984 or at least in the early eighties, there were five officers—a master, chief mate, second and two third mates. In the 1980s all of the tanker companies, to my knowledge, and a lot of the dry cargo companies negotiated away or unilaterally did away with one third mate.

I believe that the investigation by the NTSB is going to show that all of the junior officers aboard the *Exxon Valdez* worked at least 10 to 12 hours the day before the accident. It is our belief that in fact the second mate was not called to come to the bridge at midnight because the third mate wished to allow him an additional hour or two rest because of the hours that he had worked during the day. If the second mate had been called, he might have well recognized the peril that the ship was heading into and taken some action.

We looked at where the vessel grounded, the difficulty of navigation in the particular area, and had a great deal of difficulty trying to fathom the reason for the accident if it was anything other than fatigue. We urge this Committee to consider this. We know that you are dealing with a specific problem in Prince William Sound, but I think that the question and the incident, and the potential for having this occur again and again in other areas exists. If we are going to continue to operate ships this way, we would really urge the Committee to take a look at this particular issue as well as others in the bill.

The second thing I would like to do is support Captain Neely's statement about the State pilots. The State pilots live in the area. They generally are more experienced and better trained than Federal pilots. They do pass the same exam, but then have a stringent apprenticeship program that they go through prior to being licensed by the State.

Because they are licensed by the State, they have certain obligations to the State that a crew member on a ship serving as a Federal pilot, or even a Federal pilot holding himself out for hire to a steamship company, does not have. So we would applaud this portion of the bill and support it, and urge once again that you look at its application not just in Prince William Sound but nationwide. If it is good for the citizens of Alaska, it ought to be good for the citizens of all our coastal States.

The last item I would like to address is the very sensitive one about the penalties for shoreside use of alcohol, a single instance of violation of an alcohol-related law resulting in revocation of a license and livelihood. We recognize there is a problem with alcohol abuse aboard ships. It has existed since I guess Columbus crossed the ocean. No one that I know of has a handle on the scope of the problem.

To my knowledge it is very rare indeed that you would find a ship's captain with a problem, but in any case, there are certainly a number of mechanisms in existence already to handle it. The Coast Guard has authority to revoke licenses and suspend licenses for exactly this sort of behavior, if in fact it was the case or it turns out to be the case.

We think that the scope of the statute is much too broad. We are going to throw out a lot of babies with some bath water, if a single instance over a 10-year period of use of alcohol ashore will result in revocation—and note I said ashore, not on the ship. We have supported the Coast Guard regulations on prohibiting the use of alcohol on board ship and still do that.

Gentlemen, thank you for listening to me. If you have any questions, I will be happy to answer them.

[The statement of Mr. Bobb may be found at end of hearing.]

Mr. LAUGHLIN. Thank you, Mr. Bobb, for your summary.

Is there anybody else on your panel that is going to testify? Mr. Kelly?

STATEMENT OF MR. KELLY

Mr. KELLY. My name is Ed Kelly, and I am vice president of District 2 of the Marine Engineers Beneficial Association. I, too, will summarize a report that you didn't get because I didn't like what was written.

Just thinking back, it reminds me that it is important to remember that since the Trans-Alaskan Oil Pipeline opened in 1977, nearly 7 billion barrels of ANS crude has moved from Valdez in nearly 9,000 U.S.-flag tankers, transiting without any incidents. Unfortunately, the one incident that we are addressing today has created so many problems that we are going to have to introduce laws to address many of the problems that this incident brought to the surface.

H.R. 2158, which we are talking about, proposed many things. Item 1, Section 101, requires the Transportation Secretary, in the event of a spill, to take all necessary and proper actions to remove the oil and mitigate damages to living marine resources in those waters, even while holding liable the parties responsible for the unlawful discharge or release of oil. That sounds a lot like federalization of the cleanup process, and I don't think that would sit too well with the people at OMB and the White House at this present moment.

Section 102 requires tankers carrying ANS crude to be escorted through Prince William Sound by at least one tugboat. That would improve navigation to the channel and create additional work for U.S. tug firms. On the surface that sounds good, but I believe we should take a good hard look at it to see if the use of tugs or escort vessels creates more problems than it solves.

This section also requires a tanker to employ an additional pilot licensed by the State of Alaska. This I completely agree with. I think Captain Neely and Mr. Bobb addressed that, and we too are in complete agreement with that requirement.

It also requires ANS tankers to carry cleanup equipment, which in our view would have to be furnished by those who own the cargos, not those who own or operate the vessels.

Section 103 requires improved U.S. Coast Guard monitoring of Prince William Sound, including new vessel traffic systems with greater range. VTS deficiencies in Prince William Sound were certainly a factor in the *Exxon Valdez* incident, and they must be corrected, not only in Prince William Sound but in New York and the other places where the VTS systems were shut down.

Section 104 directs the Transportation Secretary to supervise the pre-positioning of cleanup teams and equipment in the Port of Valdez, and to require oil skimming ships and barges among the equipment. I would like to make one comment on that. There appears to be no one in the United States Government who has any responsibility for skimming equipment, for the development of new equipment or the purchasing of it. If you talk to the Navy, they have the responsibility for their own little area. If you go visit the Coast Guard, they say they are not going to spend any money on skimming equipment because they use contractors to do it.

I don't think there has been any new skimming equipment introduced into the system in the last 10 years, and any of the skimming equipment that is being purchased today is purchased for in-harbor work, harbors like New York, Philadelphia, Baltimore, or some other inner harbor. None of the equipment is useful, other than some of the Navy equipment, in areas like Prince William Sound.

Under Sanctions, H.R. 2158 proposes some tough actions. Section 201 would revoke a merchant marine officer's license if that officer is known to have had a drunk driving or other alcohol-related offense record within 10 years of an incident or illegal proceedings stemming from an incident. That is extreme. If an individual had a problem with alcohol but is rehabilitated, the offense still stands on the record, causing unfair punishment.

Incidentally, I heard John mention the problem of alcohol on the ships. For many, many years Jack Daniel was a shipmate to many of us, but I visit the ships today and I don't see him. He is not aboard. He has signed off.

I am really concerned with what we have done to Captain Hazlewood. The press has tried Captain Hazlewood and found him guilty, and I know other people who have grounded a ship and have done a lot more action than to have a drink or two after the accident. One captain, after he went aground, killed himself. Another guy flipped his lid. But until the courts come down with a finding that Captain Hazlewood was drunk, I assume that he was sober, and all masters should not be judged based on that incident.

Exxon and other U.S.-flag tankers have cut crews to the bone. The *Exxon Valdez*, as John Bobb said, was running with a crew of 19 licensed and unlicensed crew members when she hit bottom. The officers, the mates on that ship, were standing, from what I understand, 6 on and 6 off while waiting for the chief mate to get enough sleep to come and take a watch. That is strictly against the law, and there should be action taken to see that that does not happen on any major U.S. ship. I believe I go along with what Mr. Bobb said, that we should go back and put the additional mate on these ships, and have three mates just as watch-standers and the chief mate as a cargo officer.

Exxon has also instructed its captains and chief engineers to eliminate overtime so it can create records showing the Coast Guard that its crew reductions are justified. I strongly recommend that the Subcommittee read the excellent reporting of William Coughlin of the Boston Globe on this subject, and that the Coughlin articles be made part of the permanent record. The fatigue factor is an area that warrants congressional scrutiny. Much of everything else put in the hopper and scheduled for hearings is a product of political panic, most of it unnecessary.

Thank you.

Mr. LAUGHLIN. Thank you, Mr. Kelly.

Ms. Ott, are you testifying?

STATEMENT OF MS. FREDERICKA OTT, REPRESENTING THE CORDOVA DISTRICT FISHERMEN UNITED AND THE UNITED FISHERMEN OF ALASKA, ACCOMPANIED BY MRS. MICHELLE HAHN O'LEARY, MEMBER OF THE BOARD OF DIRECTORS OF CDFU

Ms. OTT. Yes, I am, but I would like to ask all these gentlemen to move down so I can see my own Congressman.

Mr. LAUGHLIN. It appears he has noted your presence and will be with you shortly.

Ms. OTT. My name is Riki Ott. I am a Cordova resident and fisherman. I own a salmon drift gillnet permit, and have fished Prince William Sound for four years. My training is in marine toxicology. I have a master's in oil pollution and a doctorate in sediment pollution.

With me is Michelle Hahn O'Leary, a fellow fisher friend with 15 years' experience in Prince William Sound and Bristol Bay fisheries. On behalf of Cordova District Fishermen United and United Fishermen of Alaska, we wish to thank Members of this Committee for inviting the fishing industry to testify.

The *Exxon Valdez* oil spill has focused a spotlight of concern on a myriad of issues involving marine transportation of oil. The scope of the problem extends far beyond Prince William Sound. Between 1984 and 1987, the United States accounted for 54 percent of the world's major oil spills, and these U.S. spills absorbed 62 percent of the world's oil spill cleanup costs. Major spills are defined here as those requiring a minimum of $250,000 for cleanup. This is an excusable track record for a world leader.

H.R. 2158, sponsored by Congressman Don Young, is a good start towards addressing the maritime safety issued. Alyeska pipes 24 percent of the United States' domestic supply of oil onto about 1,000 primarily U.S.-flag tankers each year. Thirteen percent of the U.S. tanker fleet is involved in the trade of North Slope crude, and this 13 percent accounts for 52 percent of the structural failures in this fleet.

While H.R. 2158 addresses general issues, I would like to offer comparisons between proposed regulations and standard operating procedures at the Sullom Voe oil terminal in the Shetland Islands, United Kingdom. For all practical purposes, the Sullom Voe terminal is a sister terminal to Alyeska. The two facilities are operated by consortium of owner-companies, including five of the seven sisters at Alyeska, and are of a similar size, located in similar fiord systems, and share similar weather conditions.

Section 102[a][1] requires at least one tug escort for outbound tankers. A State emergency order requires two. During a blow in 1980, the fully-loaded tanker *Prince William Sound* lost power in Prince William Sound and drifted inexorably towards an island while two tugs tried in vain to tow the tanker to safety. The twin-screw tugs simply did not have enough power to counteract the wind and seas. Sullom Voe requires four tugs, one of which must be a tractor tug, which is capable of maneuvering tankers in more weather conditions than the twin-screw tugs currently used at Alyeska.

Section 102[a][2] requires an additional licensed pilot to a point south of Bligh Reef. Sullom Voe requires use of pilots between the open sea entrance and the terminal. In addition, Sullom Voe restricts transfer of pilots by boat in poor weather conditions. Instead, the terminal requires use of helicopters. In winter months helicopter service for pilots is provided for free. If the weather is too bad for even helicopters, tankers wait.

Congressman, in early February Alyeska pilots were transferred by boat in 65-knot winds, 12-foot seas, and icing conditions. It is only a matter of time before we have another accident in Prince William Sound.

Section 103 requires an expanded radar system. The section could be expanded to include additional repeaters for VHF radios, so the vessel traffic control system could maintain both visual and radio contact with vessels in Prince William Sound. Because of the configuration of the port, radio communication was poor at best between the terminal and vessel and air traffic during this recent crisis. They couldn't even communicate with the tanker sometimes. This is at the terminal. All they need to do is place some more repeaters in the mountains and on some of the islands.

Section 1 requires pre-positioning of oil spill containment and cleanup equipment. That must be 104[1]. In addition, Sullom Voe has permanent mooring points for rapid boom deployment in environmentally sensitive areas, including the marsh at the head of the fiord. We have a marsh at the head of the fiord in Port Valdez. Also around our hatcheries we would like some permanent mooring buoys.

Sections 104[3] and [5] could be combined, so that the people in Prince William Sound communities and hatchery personnel are provided regular training sessions in oil spill containment and recovery. These trained volunteer teams should be kept in the Prince William Sound communities, with professional oil spill response teams at the Alyeska terminal.

Section 104[4], Sullom Voe conducts drills at least once a month, with major exercises at least once a year. Alyeska conducts sporadic oil spill drills with oranges. Surely Marco or other manufacturers who make the ocean standard boom and skimming equipment do not field test their equipment with oranges. Let's check and see how they do it.

During January there were two oil spills that occurred at the Alyeska terminal. The response to both of these spills was a fiasco. For the first 1700-barrel spill, snow had to be shoveled off the barge before booms could be loaded. After the barge was deployed, it was discovered the hydraulic pumps didn't work, so they backed vac trucks down the dock, only to discover that the tide was out and the hoses couldn't reach the water's surface.

Largely because of good weather, most of the first spill was cleaned up. However, nearly half of a second 50-barrel spill a week later was lost. If the industry is incapable of containing and recovering a 50-barrel spill at their own terminal, how could anyone believe they would be prepared for a 200,000-barrel spill?

Section 202: In addition to adequate civil penalties, oil companies should post an adequate bond. $14 million is simply insufficient. We suggest that oil companies receiving crude oil from Alyeska post a bond of $1 billion per incident to cover all third-party chartered tankers carrying TAPS oil. Furthermore, Alyeska should be mandated by law to either refuse to load crude or to deballast any chartered tanker which is not fully bonded, or Alyeska itself should post a $1 billion bond and accept full responsibility for all damages from and cleanup of oil spills from unbonded chartered tankers.

Section 302: Concerning maritime research and development, I have two points. One is that by only addressing living marine resources, we are ignoring sediments, beaches, and water, the habitat for the living marine resources. Man should be included as a living marine resource. At this point we are all out on the beaches. I don't think $5 million is going to be enough to address these issues.

Secondly, Cordova has been planning a marine research institute for several years. We now have an executive director, a building, and are in the process of attaining permanent facilities. We would appreciate support for this venture.

Congressman Young's H.R. 2158 is certainly a step in the right direction. I have addressed more specific concerns with the bill in my written testimony. I would like to emphasize the following concerns:

The contingency plan should be adopted as regulation. Secondly, we are against Federal preemption of the TAPS fund and States' rights in liability matters. The TAPS fund, incidentally, needs thorough review. Third, we need a local port authority established like they have at Sullom Voe.

In conclusion, the fishing industry welcomes the opportunity to work with Congress to adopt legislation to prevent another ecological disaster like the *Exxon Valdez* oil spill from ever happening again. We need thorough, well researched legislation. Let's do things right this time.

Thank you very much.

[The statement of Ms. Ott may be found at end of hearing.]

Mr. LAUGHLIN. Thank you, Ms. Ott.

Is there anyone else on the panel that will be testifying?

[No response.]

Mr. LAUGHLIN. Captain Neely, I have a question that perhaps Mr. Bobb or Mr. Kelly will want to address also. I share your concern about using State pilots but, as I understand the facts surrounding the Valdez incident, this shipwreck occurred in Prince William Sound at a point that is in excess of 10 miles in width. It seems to me that if you have water, navigable water that wide, that if the person in charge of the vessel has any competence, they should be able to steer it through a body of water of that width. I make that statement, and then I want to preface it by saying I am not familiar with Prince William Sound.

Is it your position that there is a beginning point at a port, some distance or some barrier past which a pilot should be in board, and in the instance of this incident, had the ship not arrived at the point where you are recommending a pilot should have been on board, assuring the safe passage of the ship?

Captain NEELY. Mr. Chairman, in most instances there are established sea buoys which are the outer limits for seagoing ships to enter ports. As you well know, the seven ports in Texas have an entrance that we talk about in feet rather than in miles.

I would suggest to you that a local pilot would never have grounded the *Exxon Valdez*. I don't even think he would have grounded the ship in zero visibility weather with fog, with the modern technology of radar, and this is the reason that the pilot got off of this ship, because he had taken the ship out of the narrow part, out of the Valdez Narrows where originally it was thought that there would be a problem. There was thought to be perhaps the need to remove a rock from the Valdez entrance, actually in the arm going into the harbor.

The reason that the pilots were not at Hinchinbrook, they lost one pilot boat there and almost lost lives because of severe weather. In the emergency regulation that Governor Cowper instigated immediately thereafter, the pilots were then asked to go an additional 12 miles further out past Bligh Reef.

I have talked with the pilots there. They think that the Young bill would be an appropriate spot that they could handle in the weather. This area past Bligh Reef would get the vessel out to a point where it has been described as something like 10 miles wide, and we would see no use for having any problems in grounding a ship.

The contingency plan that has been described to you by Mr. Kelso earlier was immediately put into effect, and the pilots now are conducting the pilotage services to that point. The pilots there relate to me that they are astounded at such a fluke of an accident, and they have made some recommendations of which perhaps you are aware or perhaps you are not, that I would be glad to reiterate for a couple of minutes, although the hour is late. I don't know whether you want that or not.

It was interesting to me that Admiral Sipes in his testimony suggested that, other than the local pilot who runs in and out of there every day, a pilot might end up with some special consideration for simulator training for the renewal of his license. The fact that you can get a Federal license today with a few minimum trips aboard a vessel the size of the Valdez, and you might have that license and not use it for 5 years, all that is required for you to renew that license is one familiarization trip prior to your renewal. In 5 years, I suggest to you that I wouldn't want to be the pilot meeting the guy on the Valdez.

Mr. TAUZIN. That makes good sense.

Mr. Young is recognized.

Mr. YOUNG. Captain, you got to meddling there for a moment there. I have to go back and get my renewal, you know.

Captain NEELY. I stopped preaching and went to meddling. I'm sorry about that, Mr. Young.

Mr. YOUNG. You went to meddling, but you make a good point.

On the alcohol problem, Mr. Kelly and Captain Neely both, I am going to suggest one thing. We copied in my bill the current drug law, per word, only applied alcohol to it instead of drugs, and we are willing to listen to some suggestions on this. I will say even the Coast Guard has some reservations about the 10 years, and we are going to look at it, but we are going to try to make sure that the captain or the mate as he boards that vessel is sober.

I am not convicting the captain necessarily, other than the press has already said he was drunk, and there has been testimony of witnesses that the captain was drinking. As a captain myself, I have not been one that was pure all my life. Another Member said he had never had a drink all his life, and I looked at him kind of funny.

Mr. TAUZIN. But do you womanize?

[Laughter.]

Mr. YOUNG. If you run the river, I am not going to admit to anything.

But we do have to make sure. This is a big responsibility, this ship. It is a monstrous ship and it affects a great many people's lives. We can't allow for laxness to occur. So we are going to listen to what all of you have to say on this issue and make sure that that input is put in, but we are not going to be lenient.

Mr. KELLY. Congressman, we agree with you. We want to get the drunkards and the guys who have a drinking problem off the ships. We don't want them on the ships. It is creating a safety problem for everyone around them. Most of the guys, if the guy has a drinking problem, the chief mate will report him, or the second mate, and we try and get him to a hospital. If the guy won't go to a rehab program, he won't sail with us. That's it, no question about it.

Mr. YOUNG. The other thing is—and I agree with you, all of you—I do think the pilot should go further. Ms. Ott mentioned the use of helicopters. I have ridden in a helicopter in a 60-mile-an-hour wind, and that is an exciting experience, too, especially landing on deck, but we have to also take the pilots into consideration and get them to the best place.

I suggested to Captain Neely and Captain Murphy in Alaska that we might require them to go all the way, as far as Hinchinbrook, and if the weather is too bad, to go all the way to the terminus point and fly them back. It is a cheap expense. I was told that they didn't have that many pilots available. I do think we have to keep that in mind, that the local pilot is very, very important.

The undermanning of the ships, that is something we are going to look at. It's a big thing. I can remember 5 years ago—I know most of you might remember this, too—where the industry was telling us that if a Captain came into the Valdez Harbor three times, they ought to have the capability to navigate their own vessels within the harbor, and they were proposing that. We were able to stop that, but they suggested that in other harbors I know around the United States, that if a captain has been in there numerous times, he has the same ability as a local pilot. That is nonsense.

Ms. Ott, you came to my office yesterday, and I have been reviewing this plan, and we are going to consider that. I mean, I think it has good merit. The Shetland Islands may have some things. I was going to ask Mr. Kelso this, what the State would think of it. I forgot to do that. But we will look at this, and if it has a great deal of similarity to our area, climate-wise, shipping-wise, the whole bit, it does have a great deal of merit, and if we can crank some of those aspects into the legislation we are going to do it.

I would suggest one thing. I know that there is some hesitation on this legislation. I am concerned with this, because the longer we wait, the less the pain is, other than to ourselves, and the more objection comes to it from other sources. I am not convinced that the administration is going to end up supporting this legislation. I am not convinced they are going to be opposed to it, because we are going to do a lot of talking, but I want to move while the kettle is hot, so we can go forth and try to solve some of the problems.

I know you have some interest in the lab, and I appreciate the Commissioner saying he has mutual interest, and I hope that will be written into the legislation.

We can work on the manning, the pilotage. We are going to hear from somebody later on about the recovery equipment on board the vessel. There are some objections to that. I frankly think it is a realistic approach not to have the crew to manage the equipment on board the vessel, but to have it on board the vessel and have that strike team available to be transported via helicopter to a ship if it was to have such an accident and to have the equipment right there. They can do it in 25 or 30 minutes, faster than any boat could move. After being on top of those decks numerous times, there is room available. It will not interfere with the mission of the ship, and I think we had better seriously consider that as a possibility.

I would not support the crew dispersing the containment equipment, because I do believe that the crew's main responsibility—they are married to that ship, if they are good crewmen and a good captain and good mates, and they are going to do everything possible to protect the ship at that time, and I understand that. But if they notified the strike team in Valdez or Cordova, wherever it is going to be stationed, they could have been out there immediately and then the escort vessel could back them up, so I think we ought to keep that in mind.

There is some objection, I know. The Coast Guard has questioned it. I know some of the naval people have questioned it, some of the architects, marine architects have questioned it, but I don't want us to say no. Last year—I know I am rambling—last year the Navy told me they couldn't take care of their sea dumping activities. We took care of that little problem, and amazingly, they can do it, so let's look at all the aspects.

I don't have any other questions at this time, Mr. Chairman.

Mr. TAUZIN. Thank you, Mr. Young.

Mr. Kelly, I notice in your testimony you say that on American ships the use of alcohol has always been prohibited. Is that accurate?

Mr. KELLY. No, that is not true. All I said was that years ago on U.S.-flag ships, Jack Daniels was a shipmate. I don't see him right now. He is not there anymore.

Mr. TAUZIN. I'm sorry. It was not your testimony. It was testimony submitted for the record by the Masters, Mates & Pilots.

Mr. BOBB. That is my——

Mr. TAUZIN. Mr. Bobb, I apologize. You state categorically, "On American ships, the use of alcohol has always been prohibited."

Mr. BOBB. That is true, and most of the companies have policies that prohibited the use of alcohol until very recently. In the Articles of Agreement there is a prohibition against crew members using or possessing alcohol. It has been standard practice on U.S. ships until very recently.

Mr. TAUZIN. Well, are you aware, did Exxon have such a policy, that alcohol was prohibited aboard its supertankers?

Mr. BOBB. I can't speak for Exxon and we don't represent Exxon's personnel.

Mr. TAUZIN. Well, it is very clear from what we know about this incident that there was alcohol on that vessel that the captain either drank before or after. Some say he had a drink after he put it on the reef, but he certainly had alcohol in him and there is at least evidence that he was drinking. There was alcohol aboard that vessel.

Mr. BOBB. Yes.

Mr. TAUZIN. Maybe we will get the next panel to clarify this for us a little later, but clearly American ships, at least some of them, do permit alcohol on the vessel.

Mr. BOBB. Well, finding it there and permitting it are two different things. The fact that you might find it there, traditionally masters of vessels have had alcohol for entertaining shoreside personnel, agents, customs people, that sort of thing on international voyages. Coastwise ships, the same type of thing happened, but crew members themselves were not permitted to have alcohol.

Mr. TAUZIN. I think in the Senate hearings yesterday it was pointed out that alcohol as a policy was prohibited from stationary platforms in the Gulf, and yet alcohol as a policy is not necessarily prohibited on American ships.

Mr. BOBB. Well, the law is clear on it. Now what individual companies choose to do is another matter. In recent years there has been some attitude that American ships ought to be more like our European colleagues, who do regularly permit alcohol on board ship and in fact have bars. I don't know of any company that has gone that far, but some have turned their heads to the possession of alcohol on board ships.

Mr. TAUZIN. In December, 1987 the Coast Guard passed the final rules setting limits on the use of alcohol aboard vessels, and the limits of course are that you can't have so much without being intoxicated, and you can't assume a watch within 4 hours of consuming alcohol. That seems to imply that you can have it aboard the ship, as long as you don't consume it within 4 hours. Is that right?

Mr. BOBB. Yes, it is.

Mr. TAUZIN. It seems as though our rules at least imply that the consumption of alcohol by the captain and crew is permitted, so long as they don't abuse the rules of consuming alcohol.

Mr. BOBB. That was the Coast Guard regulation, but the statute or the Articles of Agreement prohibiting use of alcohol, was never changed. So while the Coast Guard promulgated the regulation that set out limits, it never came out and really said that you can have alcohol aboard ship. It just said you could be aboard the ship if you didn't have a blood alcohol content of greater than .04. In other words, you could go ashore for dinner, have a beer or two, and come back aboard the ship. If you had an alcohol level of .04, you were not even, according to the Coast Guard regulations, allowed on the ship.

Mr. TAUZIN. That makes sense, but what concerns me is that the rules are written as though to imply that you can have alcohol aboard a tanker so long as the crew and the captain aren't consuming it within 4 hours of being on duty.

Mr. BOBB. That would be the interpretation I would think of, too——

Mr. TAUZIN. That's the interpretation I made. Rather strange, isn't it?

Mr. BOBB. —— but you are going to have to ask the Coast Guard why they did that.

Mr. TAUZIN. Captain Neely, your association every now and then has a pilot with some problems. How do you deal with pilots who consume alcohol and who get in trouble as a result?

Captain NEELY. I am pleased to report that, for instance in your own area, Mr. Chairman——

Mr. TAUZIN. Where there is a little consumption of alcohol. [Laughter.]

Captain NEELY. ——there is very little consumption of alcohol, but we will take for instance the Crescent River Pilots who operate the large vessels from Pilottown to New Orleans. They have had in effect since about 1983 a voluntary program for drug and alcohol.

Mr. TAUZIN. It is even stronger than that, isn't it? I mean, aren't pilots called in if they have problems, and they are told, "Look, fellow, you either rehabilitate right now or we are going to pull your license or you can retire gracefully." It's a pretty tough policy, isn't it?

Captain NEELY. Yes. We don't advertise that, Mr. Chairman, but on the other hand I can assure you that we have an in-house strict rule taking care of those problems, and I suggest to you that we don't want to be on the Valdez with someone drinking, and as a matter of fact, we don't want to meet somebody that might be on the Valdez drinking. We don't tolerate it.

Mr. TAUZIN. Ms. Ott, you produced some pretty substantial recommendations to us. By the way, I want to thank you for that. Among them, you have a drug/alcohol section in your written statement to us where you make some recommendations.

Would your organization feel strongly that maybe it is time for us to prohibit any alcohol aboard vessels of that nature, as long as it is not a cruise ship or you are doing a little entertaining?

Captain NEELY. Who were you addressing that to?

Mr. TAUZIN. Oh, any of you.

Mr. KELLY. I am personally opposed to it. I think that if some of these ships are out for 8 or 9 months, that in moderation alcohol is not going to hurt anyone. We have, as I said, some pretty strict rules. If a guy has a problem, he doesn't sail. He is gone. He either goes into a rehab program, and if he doesn't, he is not going to go back to work.

Mr. TAUZIN. Well, you know, what somebody suggested to me, Mr. Kelly—and this may seem a little cynical, and I hope this isn't true—but it has been suggested to me that having a captain who drinks a little bit, when you are a mate who can operate the ship and get overtime in because your captain isn't always available to operate the ship, it might be desirable for some mates if your captain is not around, because of the fact that we have fewer American-flag vessels and a lot of very qualified people to operate them. That's a pretty cynical view. Is that true?

Mr. BOBB. I wouldn't think that was true. I would think the mate might look at it more as a promotional opportunity, if he informed the right person at the company office that that was going on.

Mr. TAUZIN. The problem is that there are a lot of people who have more time in than he does ahead of him, and if the captain is gone he can't get that job, but if he has a captain that is never around, he can make the overtime. That is the cynical view I have heard expressed, or the nasty view. I hope it isn't true.

Mr. BOBB. No, Mr. Chairman, I don't think that is the case at all. I have never seen or heard anything that would even resemble that.

Mrs. O'LEARY. Mr. Chairman, if I could——

Mr. TAUZIN. Yes, please.

Mrs. O'LEARY. ——from the fisherman's viewpoint, we look at the use of alcohol on the tankers as affecting not only the lives of the marine mammals that we have heard so much about and the birds, but rather affecting all the communities in Prince William Sound and our lives. We would like to recommend that the pilots are treated similarly to airline pilots, in that they have a period before they board a ship where they are not allowed to drink and they must have no alcohol in their blood system before they get in board that ship, and that no alcohol be allowed on the ships. Although we are not on that tanker with them and we are not going to get killed on that tanker with them, they are having a devastating impact on our lives right now.

Mr. TAUZIN. To any of you, should any known drug abuser, even a rehabilitated one, have a 5-year license without any follow-up supervision?

Mr. BOBB. Mr. Chairman, you asked before if there was any opposition to the total banning of alcohol aboard ship.

Mr. TAUZIN. Yes, sure.

Mr. BOBB. The attitude today among many companies is that the ship is the home and that the officers and crew ought to be a team working together, and that there is nothing wrong with an individual off watch having a beer or a glass of wine. The problem is one that society as a whole has, and that is, how do you distinguish someone who abuses that privilege from someone who does not.

Mr. TAUZIN. Sure.

Mr. BOBB. I think the Coast Guard regulations were written with that view in mind, even though many companies still today prohibit entirely the use of alcohol. Our attitude in the Masters, Mates & Pilots is, we would like to identify the abusers of alcohol and get them some sort of help.

The section in the bill deals with perhaps a single lapse of judgment ashore, somebody having too much at a reception or any kind of social function and then running afoul of the law, or a young person who, before he has matured enough to curb his behavior in acceptable ways, has a problem. We just think that the distinction between abuse and use is not made in the statute, and that it needs to be looked at and perhaps redrawn more narrowly so that we do target and remove the problem drinker from the scene.

Mr. TAUZIN. You recognize, Ms. O'Leary, that airline pilots, although they are subject to that kind of restriction, nevertheless fly planes that have alcohol aboard the plane. Would you suggest that there be no alcohol at all aboard ships, tankers? I mean, that is what I am trying to get at. Do we need to go that far, or is there some mechanism to control it, as with the airline pilots?

Mrs. O'LEARY. That is a difficult subject. I think it would take a little more research. The only thing I can say is that the pilots are in the cockpit and the alcohol is in the cabin. They are not in the same place.

Mr. TAUZIN. A little door.

Mrs. O'LEARY. A little door, that is true, but the testing that goes on with airline pilots is very severe and the penalties are very severe, and I would like to see some sort of testing and penalties similar to the airline pilots.

Mr. TAUZIN. Congressman Young and the Coast Guard also indicated a great desire to see some sort of coordination between drug abuse violations on shore and the licensing procedure. In this case of course it is obvious: Here is a fellow who couldn't drive a car in New York because of violations of the drunk driving laws, and yet who held a valid license to master a tanker and held that license for a 5-year period. How do we get at that problem?

Mr. KELLY. The sad thing about that is, I understand the company knew he had the problem. They knew that he had the alcohol problem. The company should have prohibited him from sailing on that ship, and I guarantee you if he was a District 2 member and an MM&P member that had the same problem, he wouldn't be sailing because we wouldn't ship him out.

Mr. TAUZIN. The Coast Guard and the Chairman of Exxon both, I think, raised the concern that if you take too tough a stand against someone who has a problem, and yet who has gone through rehabilitation, that you discourage people from coming forward and asking for rehabilitation. How do you respond to that?

Mr. KELLY. I agree with them, but there is a point where you get to know whether the guy has been through the rehab or not. We see it in our members that have been through

asking for rehabilitation. How do you respond to that?

Mr. KELLY. I agree with them, but there is a point where you get to know whether the guy has been through the rehab or not. We see it in our members that have been through

it. They are con artists. They have been con artists from the day they were born. They convince you that they are on the straight and narrow, but a shipmate will say, "Hey, he is not on the straight and narrow. He is drinking again."

Mr. TAUZIN. Well, why didn't that happen in this case? Why didn't one of the other mates or someone say——

Mr. KELLY. I don't know. I wasn't on that ship.

Mr. TAUZIN. I mean, what is your guess on that?

Mr. YOUNG. Would the gentleman yield?

Mr. TAUZIN. I would be happy to yield.

Mr. YOUNG. I can tell you why he didn't. Number one, it wasn't a union crew. Is that correct?

Mr. KELLY. It was not.

Mr. YOUNG. And I am serious about that. I know that my industry doesn't like me to say that, but it was not a union crew. It was undermanned, and very frankly, as a captain, if a mate squealed on me, he wouldn't ever sail with me again. I mean, that's the truth of the matter. I very frankly think that there is a lot of intimidation from the captain of the ship to anybody underneath of him. I think in fact, once he was reported, the retaliation was very evident.

So that is what happened in this case. How do we avoid it? It is something that hopefully this bill will rectify, if we can work it out where we are not taking everybody's rights away from them, but work it out where it can in fact give that guy a chance. He shouldn't have been on that bridge. He should have been at a desk. He went through rehabilitation and they put him back on the bridge.

Mr. TAUZIN. Captain Neely?

Captain NEELY. Mr. Chairman, it was interesting earlier in Admiral Sipes' testimony that he would advocate a loading crew to come aboard to ease some of the fatigue that is associated with the vessel. That perhaps would allow a man to go ashore and, if he so desired, to have a fling and not be back to that vessel in a state of intoxication. He would get a night's sleep, a good meal, this type of thing, and he would be ready to go back to work tomorrow, had he had a party tonight.

Mr. TAUZIN. Speaking of airline rules, there is such a rule in effect right now, I mean not just for purposes of alcohol consumption but for fatigue. Crew on an airline right now can't fly that plane before so many hours have elapsed for them to get some rest. I can attest to that personally. I missed an important vote this year because the plane in New Orleans couldn't fly, because the crew was under that fatigue rule, could not get aboard the plane and carry it out. Should we have good fatigue rules?

Mr. KELLY. Yes, yes, very much so, and the rules are in the book anyway. They are not being complied with.

Mr. TAUZIN. They are there and they are not begin complied with? Is that a matter of lax enforcement?

Mr. KELLY. Well, the lack of enforcement or the company cutting back. Everyone talks about cutting back to save money, this, that and the other thing. Exxon and the other oil companies in the Jones Act trade have reduced the manning to the point where you would think they were in the international trade, competing with the foreigners, with the Greeks and with the Panamanians and others, but they are competing against their own U.S. companies, carrying their own oil to their own refineries, and every time they have cut a guy off the ship, I have not seen a penny drop from the price I am paying.

Mr. TAUZIN. Well, the truth is, in fact, going back to what Mr. Young has said, jobs are pretty scarce on American-flag vessels in the Jones Act trade, aren't they? Maybe there is some truth to the fact that people are a little afraid to lose their jobs by reporting incidents, so we need to deal with that somewhere, to think about it.

Mr. KELLY. All I can say is, we are very fortunate it was a U.S.-flag vessel owned by a company the size of Exxon that had the response capacity, and not a foreign-flag vessel owned by a group that had a desk.

Mr. TAUZIN. A good point.

Gentlemen and ladies, thank you very much. We really appreciate your time.

Ms. OTT. Mr. Chairman?

Mr. TAUZIN. Yes, Ms. Ott?

Ms. OTT. May I ask, I prepared a document on Sullum Voe and some other information. Could that be in the record?

Mr. TAUZIN. Yes. We will, in fact, include all of that for the record, and thank you again for not only the submissions but for your testimony today. Thank you very much.

The correct terminology is, it is available with the Subcommittee. We cannot technically put all that in the record. Okay?

Mr. TAUZIN. The next panel is the oil and maritime owners, Jerry Aspland of Arco Marine, whom we had the pleasure of hearing earlier today, and then Ernie Corrado, president of the American Institute of Merchant Shipping. We are pleased to see both of you again, and welcome a summary of your testimony. As you know, it is late, and we apologize for the lateness of the hour.

Jerry, do you want to start?

STATEMENT OF CAPTAIN JERRY A. ASPLAND, PRESIDENT, ARCO MARINE, INC.

Captain ASPLAND. Mr. Chairman, it is late in the day, and I heard someone say, "Let's not bash," so I am not going to do any bashing, but I am troubled by a lot of the comments that have been made, and we will just leave it at that.

I am Jerry Aspland, the president of Arco Marine, Inc., a wholly-owned subsidiary of the Atlantic Richfield Company. I am here testifying only on behalf of Atlantic Richfield and Arco Marine, Inc. We operate 10 vessels, all U.S.-flag, all manned by U.S. citizens, and the ships range from 70,000 DWT to 265,000 DWT.

I have provided my testimony, and I am not going to read anything from my testimony except make some observations which I think will help in the improvement of the legislation in front of us. Number one, I would like to say that there are two issues. One issue is oil spill cleanup and the other issue is the prevention of another accident just as this. I would like to address first oil spill cleanup, very quickly.

Number one, I believe that once oil is spilled, the major issue in any oil spill is the management of the cleanup of that oil spill. If it is done correctly, like it was done correctly in 1985 and again in 1987 in the State of Washington, it can be done very, very successfully.

Number two, in addition to the critters or the bugs that we heard about today—and I am excited about it, and by the way, they are used in some ballast treatment plants, so this is not brand new technology. I would hope that the Committee could do something about getting EPA to move a little faster on the National Research Council recommendations on dispersants. I would recommend to this Committee that you move as fast as you can, or maybe commission industry to somehow get working on those recommendations.

Number three, we need to do more environmental mapping. That gives us the idea of how we are going to step up, and when we have to make tough decisions on the environment in the event of an oil spill, we know where we are going to make our stand.

There is no question that there is a need for more equipment to clean up large oil spills. There is no way that anyone can deny that. We need to find that equipment, we need to cache it, and then put groups together that can in fact go out and use that equipment in a very effective way.

Probably mechanically, you can only probably pick up, at the most, somewhere between 20 and 30 percent of the oil in any spill. Probably 35 percent of it evaporates. The rest just lays around. I don't want to leave it that way, but it is left in the water column or wherever, so when you skim you probably can only get 20 to 30 percent. There is no question about it, the first 3 or 4 days are the most critical time in any oil spill operation.

I will leave it there. I would again like to say that I still believe that the issue is management.

When we go to the area of trying to prevent this type of accident again, I would like to say to the Committee that by our standards, about 90 percent of all accidents that occur are caused by human area.

In 1985 we grounded the Arco Anchorage, a 120,000-ton vessel, lost 6,000 barrels. We had a pilot, four officers on the bridge, it was daylight, they were going into Port Angeles. I cannot in any way tell anyone here why that happened.

In 1987 the Arco Juneau, a 125,000-ton vessel, a pilot, two officers, helmsman, lookout, a little bit in the fog, hit the Carcenas Bridge. I cannot tell you now why that happened, but it did. Somehow we need to figure out how we can make the bridge system work better as a team. They need to work as a team.

Lastly—I will finish and then be open for questions—whatever the Committee decides, you have to remember one thing: You are dealing with both foreign-flag and U.S.-flag vessels. We have heard a lot of talk about alcohol. I happen to know that there are some foreign-flag vessels that come to the Valdez terminal. They have Italian crews. It is the culture of the Italian crews that they have beer and wine on the table at lunchtime, or dinner. Most of those ships have bars.

We ran three of these type ships. They have a different system because they police themselves, but whatever we do, remember the control of the foreign-flag vessel is very, very difficult, and the control of alcohol or control of the qualifying issues for those officers and crew will be difficult. You have to work through international convention.

With that, I think I will stop. I will just answer one question about my testimony because it came up. There is the requirement in the bill for on-board equipment. I happen to be against on-board equipment, not for the cost. We have plenty of room. We can store it. We can do lots of things with it, but I believe in any accident, that people need to spend their time with what they are best at. Ships' crews are best at saving the vessel.

I realize that we would have it there for someone to get, if someone came out. I would support that, but I can tell you from a number of experiences that I have had, that if you have a difficult situation, someone will panic because they know that you have to do something by law, out will go the boom, and we could lose the rest of the vessel. We will argue this forever. I just want you to know, for that very reason, to give people something else to do I don't believe is in our best interest.

I will stop there.

[The statement of Captain Aspland may be found at end of hearing.]

Mr. TAUZIN. Thank you, Mr. Aspland.

Mr. Corrado?

STATEMENT OF MR. ERNEST J. CORRADO, PRESIDENT, AMERICAN INSTITUTE OF MERCHANT SHIPPING

Mr. CORRADO. Thank you, Mr. Chairman.

I am Ernest J. Corrado, president of the American Institute of Merchant Shipping. Before getting into the specifics of the bill, I would like to make a few preliminary comments. We are commenting on tank vessel requirements and equipment and personnel requirements, not on onshore oil spill provisions, contingency plans, et cetera. Those things are not within our expertise.

Tanker safety issues in H.R. 2158 are technical and engineering matters, largely, and we feel should be considered administratively rather than as a mandatory legislative standard enacted by the Congress. Enacting technical requirements applicable to only one State, as this bill would do, without Coast Guard study, would set a bad precedent and may not result in the best response.

Section 102[a][1], tug escorts, Alyeska and the operators have already agreed on that. We do not oppose that. We go along with the agreement, at least with respect to Prince William Sound. In 1981 AIMS made an exhaustive study with respect to tug escorts for tankers. A few observations from that study: It is a difficult maneuver. It is a complex operation to tie up and control a tanker underway. Escort cannot be a substitute for prudent navigation of the basic vessel itself. The need for escort vessels in a particular situation is based on the existence of navigational hazards, VTS operations, and pilotage requirements.

Section 102[a][2], Pilotage: We support two federally licensed pilots between the Port of Valdez and a point south of Bligh Reef. H.R. 2158 would require an additional pilot licensed by the State. However, we feel that referencing a State requirement in a Federal statute for a Federal pilotage mandate is not an appropriate precedent to set.

Also, the members of our organization support a recent National Transportation Safety Board study following an accident which proposes that the Coast Guard initiate legislation requiring all State pilots on commercial vessels in navigable waters to have a Federal pilot's license.

Section 102[a][3], On-Board Oil Containment Equipment: That is the one area in the bill that we are completely opposed to. I won't go into all our reasons here because you have all the reasons in my written testimony, that are in part related to the use of the crew, which Congressman Young has at least conceded partially on. Mr. Aspland has already made the arguments against on-board control equipment, so I won't waste time on that. As you know from my testimony, we are adamantly opposed to on-board oil spill containment equipment.

Section 103, Radar Coverage: We fully support mandatory participation in advisory VTS. We support the plan to extend radar coverage in Prince William Sound to cover the entire length of traffic separation schemes.

Section 210, the Revocation of License. While this is a strict nonalcohol standard to set, we agree with it. With respect to rehabilitation, there is disagreement among our members. Some members support putting a rehabilitated person in a sensitive position, and other members do not, so I will leave it at that.

Section 401, the Secretarial Report, which sets out a lot of criteria and factors, we support fully. We believe the Congress should not legislate on these tanker safety matters on the Valdez spill prior to receiving this secretarial report.

Thank you, Mr. Chairman, for the opportunity for us to testify. I stand ready to answer any questions, but remember I am just a poor lawyer, and these are technical and engineering matters.

[The statement of Mr. Corrado may be found at end of hearing.]

Mr. TAUZIN. You are not as poor as some of the lawyers we have on our Committee, Mr. Corrado.

Mr. CORRADO. Oh, I don't know, Mr. Chairman. I have been there, too.

Mr. TAUZIN. I will yield now to Mr. Young for questions.

Mr. YOUNG. I don't have any questions, but Ernie, if you would like to get richer, go up to Alaska right now. There are more lawyers right now per square inch than anyplace else. I am just going to suggest that that is the sad part about this. There is going to be a lot of legal pain and strain on some very, very dear constituents that will probably end up with nothing before this is all over.

Mr. CORRADO. I am well aware of that, Mr. Young, and I think that it is frankly—well, you know our profession is vulnerable in many areas.

Mr. TAUZIN. I thought we had agreed not to do any bashing over here.

Mr. CORRADO. Well, that is kind of a shameful thing.

Mr. TAUZIN. Mr. Young, you are recognized for any questions you have, sir, as long as you don't talk about lawyers.

Mr. YOUNG. No, I appreciate that. Again, this is more a comment than a question. I know there has been some question about the equipment on board and I understand, as I said before, I have conceded the crew should not be responsible for the spill because they are wedded to the ship, but for quick response containment capability, I still think having it there—you know, in my bill I talk about an escort vessel, which I think that Arco and the State of Alaska have agreed to and there is one being implemented now, not necessarily a tug but an escort vessel with containment booms, dispersants, strike force and everything else on board. That might do it.

Captain ASPLAND. I personally believe that that is a far more objective way to do it, because you are going to have people there that are going to be dedicated to not only get the boom around but also to begin the preliminary cleanup, because they will have skimmers aboard and dispersant, and they will have people on board those vessels that have training in oil spill cleanup. Much more effective.

Mr. YOUNG. What about the comments of Mr. Kelly and the rest of the maritime people about the crewing of these vessels. I know it raised your hackles, Mr. Aspland, but the truth of the matter is, we have gone from 24 to, I think on Arco vessels now you have 18, 19.

Captain ASPLAND. No. I am very glad to say I have 25.

Mr. YOUNG. Well, you are the exception to the rule, then, because we had 24 when we started, or 25.

Captain ASPLAND. No, we had 27. Last year we reduced it by 2, so we got to 25. I don't know what the number is. There is a very important study going on now with the National Academy of Sciences over crew size and safety. I can't give you the exact name of it. I am waiting for the results of that.

Yes, we are a little different than the industry. We look at things maybe a little bit different because we are very, very proud of our fleet and we carry the Arco name on the side of it.

Mr. YOUNG. So did *Exxon Valdez.*

[Laughter.]

Captain ASPLAND. Well, I know that, but it is a difficult question. I personally believe that you can do certain things technologically that can reduce the crew. I do have some problem when you get down underneath 20.

Mr. YOUNG. Okay. Now are your crews union or nonunion?

Captain ASPLAND. I am very proud to say that our unions, we have two unions and they are independent unions.

Mr. YOUNG. Okay. This gives me some good ideas.

Captain ASPLAND. Our masters are members of the management.

Mr. YOUNG. The other thing is the mention of a professional loading crew to load the vessels in Valdez. What is your comment on that?

Captain ASPLAND. Well, I have a long history with a professional loading crew because at one time I was in a professional loading crew, and we just recently eliminated all our shore relief people, but we did it on the other end where people lived, so that they could get ashore to see their families.

It is my opinion that I do not believe that this will solve any problems, or solve any problems we have before us. I do not think it is necessary to have a professional loading team. If it is, I think then you would see the number of people on board the ship really reduce, because one would say then that the only function that they might have would be navigation. It is not a matter of economics to us at Arco. I think it is a matter of practicability, and I am not sure we would gain anything.

Mr. YOUNG. Well, Mr. Chairman, I personally was one that always liked to load my vessels. People say, "Oh, you only had a riverboat." Well, I will tell you something, you have never traveled unless you have traveled on a river with about 900 tons going 28 knots downriver.

I supervised the loading of every ton because I knew exactly what the dispersement was and everything else, and I never felt comfortable when anybody else tried to load my barges. It just made me feel very uncomfortable.

My crew primarily were the loaders and unloaders, because they had a stake in it, too. If they didn't load it fast, they didn't get paid. But I just have real reservations about a professional loading crew. If it is a manning problem, Mr. Chairman, I think we ought to look at that, but I prefer having those wedded to the ship doing the loading.

I don't have any other questions, Mr. Chairman.

Mr. CORRADO. I wonder if I might make a comment or two about manning?

Mr. YOUNG. You are perfectly welcome.

Mr. CORRADO. I am certainly not going to sit here and argue about reducing manning, in light of what happened in Valdez, but when you look into manning there are a few things you should understand or look into in addition.

The distinction was already made between the Jones Act and international trade, and that is a valid distinction, but nonetheless an operator in the Jones Act trade still has a bottom line. He is still a businessman. He is still competing against other operators, and some of the competition is in imbalance and it is not an entirely level playing field.

But I think you should know and should look into this: With respect to the international trades, the Japanese and the Scandinavians are experimenting with vastly reduced manning in their vessels. In some instances it is down to 6 and 7. In others it is 10 or 12. I don't know how successful they will be with this, but this experiment in reduced manning has been going on for 6 or 7 months.

Our operators will not ever be able to compete with a foreign-flag vessel with 21 or 24 men in the crew, if their competitors are down to 6 or 7 or 10 or 12 or even 14 or 15. This is definitely going on, and I think when you get into manning, you surely should look into this aspect of it.

Mr. YOUNG. Mr. Chairman, I think he brings up a good point. We ought to look at this. I was unaware they have dropped those crews down to that size, because they are coming into our harbors.

Captain ASPLAND. Yes. The Scandinavians and the Japanese have two what they call high-tech ships. The Scandinavians I believe are at 8 and the Japanese are at 12.

Mr. TAUZIN. Thank you, Mr. Young.

Mr. Aspland, let's talk alcohol.

Captain ASPLAND. Yes.

Mr. TAUZIN. What is the status? Does your company have a policy against alcohol aboard the vessel, or do you allow it, and under what conditions? What is the story?

Captain ASPLAND. Yes. Let me straighten out one thing. It is not against the law to have alcohol aboard an American-flag vessel with the captain's permission. In my days of going to sea, we had alcohol on board the ship, and just as a sidelight, to liven up things, my job as third officer was to have the martinis or the manhattans ready at 4:00 o'clock, and if I didn't, I heard about it.

But Atlantic Richfield has a policy of no alcohol aboard the ships. We have had this policy for almost 10 years. About 1981 we had a tragic death, and we tightened up. We have had pre-employment testing. We have a very active rehabilitation program and to my knowledge, at this point in time, out of a fleet of about 500 people, there are 10 people in that rehabilitation program. On our own, they are subject to random testing for a year's basis. Under the new Coast Guard rules and regulations, they will be required to be tested for now up to 5 years.

We are in the middle of changing our drug and alcohol policy. It is going to be based on education and based on the knowing of abuse, and hopefully people on board the ships will know that if a person is drinking, that they will step up and tell that person they wish to see a different behavior. We will—we hope we will have it in place by August 1st, and I have promised lots of people this, so I have to make it now—we will test the master for alcohol upon every departure of every port.

If the master observes anyone for reasonable cause that he thinks is involved in alcohol, he will then in turn test anybody on board the vessel. If in the middle of the ocean there is a concern about the master, two of the three department heads may ask the master to take another breathalyzer and report that over the radio to myself.

Mr. TAUZIN. It sounds a little bit like the strawberries in the Bounty here. You are a little careful, I suppose, in authorities. Two out of the three can make the master take the test?

Captain ASPLAND. Yes, sir.

Mr. TAUZIN. Suppose he fails?

Captain ASPLAND. Then we will have to put the chief officer in charge of the vessel. I have realized there are some difficulties with this——

Mr. TAUZIN. Yes.

Captain ASPLAND. ——but we have had no resistance from any of our employees, including the masters, as to this policy.

Mr. TAUZIN. Mr. Aspland—and you may not be able to answer it—is that generally going on in the industry? Is there general reviewing and updating of alcohol and drug abuse policies?

Captain ASPLAND. Yes. The new Coast Guard regulations have caused a lot to go on, and there will be random testing of 50 percent of one's fleet annually. That is effective December 21st. Most companies running to Valdez are trying to move that up quicker. I think this is a new awareness to people.

I must say, and I do agree with Mr. Kelly, my observation over the last 5 years is, there is far less alcohol abuse and use aboard the ships than there was prior to that time. It is the same with the drug issue. We do not believe that use of drugs aboard our vessels is anywhere near what it was in the seventies. The only way I can relate that to you is, our disciplinary hearings related to these kinds of subjects have fallen off, and the masters tell me that there is not the smell of as much marijuana as there was at one time.

Mr. TAUZIN. Is it the law that American ships shall not carry alcohol?

Captain ASPLAND. No, it is not the law. You may have alcohol. You have to have the master's permission. There are some companies that allow alcohol on board the ships.

Mr. TAUZIN. And some of those companies are porting in places like Valdez?

Captain ASPLAND. Yes, sir.

Mr. TAUZIN. And they are American companies?

Captain ASPLAND. Yes, sir.

Mr. TAUZIN. And there is no law that says you can't, and there is no Coast Guard regulation that says you can't have alcohol aboard those ships.

Captain ASPLAND. To my knowledge, there is no law that says you can't have alcohol aboard the vessel. You can't have had anything to drink four hours ahead of time, and you can't operate the vessel if it is over .04.

Mr. TAUZIN. Would either you or Mr. Corrado like to comment on the problem of identifying the individual master or mate who has gotten in trouble with a drug abuse problem in far away State from Alaska, like New York, and for whom no one has made a report? You know, you are hopeful people will report, but suppose they don't? How do we identify them in a 5-year license renewal process?

Captain ASPLAND. Well, we support the idea that the airline pilots go through, and that is through the National Drivers Registry. We would support that issue without any trouble. We don't——

Mr. TAUZIN. Mr. Corrado, do you——

Captain ASPLAND. Just let me say one more thing: We don't support some kind of, what I would consider going back through someone's record forever and ever and ever.

Mr. TAUZIN. Sure. I understand.

Mr. Corrado, do you have any comments on this alcohol?

Mr. CORRADO. Two things, Mr. Chairman. Yesterday we testified before Senator Breaux on this subject, and our organization supports Coast Guard authority to go back to the States Drivers Registries to see if the master and maybe even the first mate has a conviction or suspension for drunken driving.

The other thing with respect to alcohol, the existing Coast Guard regulation on the books sets a blood alcohol level of .04 percent and stipulates that an individual may not drink for 4 hours before going on active duty. However, you should check, Mr. Chairman, it is my understanding that the Coast Guard has been working on a total prohibition of alcohol on board.

Mr. TAUZIN. How would you feel about that?

Mr. CORRADO. Well, some of our members have a total prohibition now. Incidentally, Mr. Chairman, a lot of our members have very good drug programs that they have had quite a while. I think by and large some of our members would go along with a total prohibition. On the other hand, others may not.

Mr. TAUZIN. Mr. Aspland, how do you think groups that you belong to would go along with a total prohibition? Is there any reluctance to go along with that in any of the member groups?

Captain ASPLAND. I don't know the answer to that. I really don't. We have never really discussed that that much.

Mr. TAUZIN. Well, gentlemen, it is late, and we do sincerely appreciate your waiting so long to testify and to help us in this thing. Thank you for your testimony.

Let me announce again our Committee hearing schedule: the 24th of this month we will be in markup, so those of you who have contributed information to us, if you have desires to have any specific language considered, we would ask that it be submitted early that we might review it. We are now in the process of drafting amendments to one of the other proposals that will be before us, and we would like to settle as much as we can at this level before we go to Full Committee.

Again, thank you very much for all of your patience, for your attendance and indeed the contributions you have made today. The meeting is adjourned.

[Whereupon, at 5:20 p.m., the Subcommittee adjourned subject to the call of the Chair.]

[The following was submitted for the record:]

I

101st CONGRESS
1st Session

H. R. 2158

To provide better maritime safety for Prince William Sound, Alaska, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

April 27, 1989

Mr. Young of Alaska (for himself, Mr. Anderson and Mr. Weldon) introduced the following bill; which was referred jointly to the Committees on Merchant Marine and Fisheries and Public Works and Transportation

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A BILL

To provide better maritime safety for Prince William Sound, Alaska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Prince William Sound Oil Spill Response Act of 1989".

SEC. 2. FINDINGS.

Congress finds that—

(1) the oil spill resulting from the grounding of the T/V Exxon Valdez on March 24, 1989, in Prince Wil-

liam Sound, Alaska, is an economic and ecological disaster of major proportions;

(2) the subsequent response and cleanup efforts have been hindered by lack of centralized authority;

(3) the oil spill contingency plan currently approved for Prince William Sound, Alaska, is wholly inadequate;

(4) existing law governing oil spill response, prepositioning of cleanup equipment, and granting of mariners' licenses applicable to Prince William Sound, Alaska, must be changed as a result of the T/V Exxon Valdez spill;

(5) insufficient funds are available for living marine resource environmental damage assessment, environmental monitoring, and oil spill cleanup research and development for marine spills that affect living marine resources and marine transportation; and

(6) immediate remedial action must be taken to resolve problems identified after the T/V Exxon Valdez oil spill and the subsequent response.

SEC. 3. DEFINITION OF ARCTIC WATERS.

(1) For the purposes of this Act, the term "Arctic waters" means the navigable waters of the United States within the State of Alaska and the waters of the exclusive economic zone established by Presidential Proclamation

Numbered 5030, dated March 10, 1983, adjacent to the State of Alaska.

TITLE I—OIL SPILL PREVENTION AND RESPONSE

SEC. 101. COAST GUARD AUTHORITY.

(a) In the event of an unlawful discharge or release of oil into or upon Arctic waters or adjoining shorelines, the Secretary of the Department in which the Coast Guard is operating shall take all necessary and proper actions to remove the oil and mitigate damage to the living marine resources in those waters.

(b) This section does not relieve the party responsible for the unlawful discharge or release of oil from liability under this or any other law.

SEC. 102. TANK VESSEL REQUIREMENTS.

(a) Within sixty days after the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating shall, by regulation under section 3703(3) of title 46, United States Code:

(1) require tank vessels transporting oil from the Trans-Alaska Pipeline within Prince William Sound, Alaska, to be escorted by at least one towing vessel (as defined under section 2101 of title 46, United States Code) or other vessel considered appropriate by the Secretary;

(2) in addition to the requirements of section 8502 of title 46, United States Code, require the use of an additional pilot licensed by the State of Alaska for all tank vessels navigating between the Port of Valdez, Alaska, and a point in Prince William Sound, Alaska, south of Bligh Reef; and

(3) require a tank vessel operating in Prince William Sound, Alaska, to carry equipment or materials sufficient to minimize the damage to the coastal and marine environment and repond quickly in the event of an oil spill, including:

(A) sufficient heavy-duty oil boom and deployment capability to encircle the vessel at one hundred yards or more;

(B) materials or other equipment to control oil leakage from the vessel; and

(C) pumps or other necessary equipment.

SEC. 103. RADAR COVERAGE.

Not later than January 1, 1990, the Secretary of the department in which the Coast Guard is operating shall prepare a plan to modify radar coverage of Prince William Sound, Alaska. The plan shall include construction of new radar sites to cover all of the Vessel Traffic System within Prince William Sound, a review of existing radar surveillance programs to ensure constant contact with vessel traffic when necessary, and a review of radar maintenance policies to ensure that the System is maintained at or above accepted industry standards.

SEC. 104. EQUIPMENT AND PERSONNEL REQUIREMENTS.

Within sixty days after the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating shall issue regulations for Prince William Sound, Alaska, to—

(1) require the prepositioning of oil spill containment and cleanup equipment in the Port of Valdez, the City of Cordova, and other locations within the geographic boundaries of Prince William Sound, Alaska, including escort vessels with skimming capability, barges to receive recovered oil, heavy duty sea boom, pumping, transferring, lightering equipment and other appropriate recovery equipment for protection of the coastal and marine environment, including fish hatcheries;

(2) require the person in charge of the Port of Valdez to provide adequate reception facilities, or ensure that the facilities are available, for receiving oil removed from the waters of Prince William Sound, Alaska;

(3) establish an oil spill response team at Cordova, Tatitlek, Chenega, or other appropriate locations in

Prince William Sound, Alaska, consisting of trained personnel in sufficient numbers to provide an immediate response to a spill of two hundred thousand barrels of oil;

(4) conduct periodic oil spill response exercises, including the practice and training of the response team with the prepositioned equipment not less than two times per year; and

(5) provide training in oil spill containment and recovery techniques for individuals engaged in the cultivation or production of fish or fish products in Prince William Sound, Alaska.

TITLE II—SANCTIONS

SEC. 201. REVOCATION.

Title 14, United States Code, is amended by—

(1) adding a new section 7706 to read as follows:

"§ 7706. Alcohol as grounds for revocation in Prince William Sound, Alaska

"(a) If it is shown at a hearing under this chapter that a holder of a license, certificate of registry, or merchant mariner's document issued under this part, within ten years before the beginning of the proceedings, has been convicted of violating an alcohol-related law of the United States or of a State, the license, certificate, document shall be revoked.

"(b) If it is shown that a holder has been addicted to alcohol, the license, certificate of registry, or merchant mariner's document shall be revoked unless the holder provides satisfactory proof that the holder has controlled the holder's addiction.".

(2) amending the analysis of chapter 77 by adding at the end the following new item 7706:

"7706. Alcohol as grounds for revocation in Prince William Sound, Alaska.".

SEC. 202. PENALTY RECOMMENDATION.

Not later than October 1, 1989, the Secretary of the department in which the Coast Guard is operating shall report to the Committee on Merchant Marine and Fisheries of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on the adequacy of civil penalties for violations of existing laws governing the operation of a tank vessel by an individual under the influence of alcohol, and any proposals for changes in, or additions to, those laws.

TITLE III—ENVIRONMENTAL MONITORING AND RESEARCH AND DEVELOPMENT IN PRINCE WILLIAM SOUND

SEC. 301. LIVING MARINE RESOURCE ENVIRONMENTAL MONITORING.

(a) Out of sums appropriated for each of fiscal years 1990, 1991, and 1992, the Under Secretary for Oceans and Atmosphere of the Department of Commerce shall expend at least $5,000,000 in each fiscal year to conduct living marine resource damage assessments and to monitor the short- and long-term environmental effects on living marine resources in Arctic waters due to the oil spill that occurred as a result of the grounding of the T/V Exxon Valdez in Prince William Sound, Alaska, on March 24, 1989.

(b) The Secretary of Commerce shall, whenever possible, recover the sums expended under subsection (a) from the owner or operator of the T/V Exxon Valdez. These sums shall be credited to the appropriations of the National Oceanic and Atmospheric Administration.

SEC. 302. MARITIME RESEARCH AND DEVELOPMENT.

There is authorized to be appropriated for fiscal year 1990—

(1) to the Coast Guard, $5,000,000 to conduct research on and develop techniques, methods, hardware, and systems which directly contribute to the ability of the Coast Guard to respond to oil spills in Arctic waters; and

(2) to the Maritime Administration, $3,000,000 to conduct technical and program studies on the safety of tank vessels operating in Arctic waters.

TITLE IV—PLANS AND RECOMMENDATIONS

SEC. 401. SECRETARIAL REPORT.

Not later than October 1, 1989, after providing a thirty-day public comment period, the Secretary of the department in which the Coast Guard is operating shall report to the Committee on Merchant Marine and Fisheries of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on—

(1) actions taken by the Secretary to correct inadequacies of existing contingency plans for Prince William Sound, Alaska;

(2) a list of oil pollution exercises conducted in the Port of Valdez and Prince William Sound, Alaska, during the operation of the Trans-Alaska Pipeline;

(3) any recommendations for changes in existing laws or plans to provide for prompt and efficient response to oil spills in Prince William Sound, Alaska, including use of oil dispersants, burning, and the best commercially available oil coagulants and oil spill containment and recovery equipment; and

(4) any other matter the Secretary considers important regarding oil spills in Prince William Sound, Alaska, including faster approval by State or Federal agencies of oil spill response technology.

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STATEMENT OF

CHARLES N. EHLER
DIRECTOR, OFFICE OF OCEANOGRAPHY AND MARINE ASSESSMENT
NATIONAL OCEAN SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

BEFORE THE

COMMITTEE ON MERCHANT MARINE AND FISHERIES
SUBCOMMITTEE ON COAST GUARD AND NAVIGATION
U.S. HOUSE OF REPRESENTATIVES

MAY 11, 1989

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to discuss the responsibilities of the National Oceanic and Atmospheric Administration (NOAA) under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and our implementation of these responsibilities during the Exxon Valdez oil spill. The Administration is currently reviewing H.R. 2158, the "Prince William Sound Oil Spill Response Act of 1989;" therefore, I am unable to comment on the bill at this time.

The NCP and the national response system it established were initiated in the late 1960's as the result of concern in the United States about the extensive environmental and economic damage from oil spilled off the coast of England when the tanker Torrey Canyon grounded in 1967. The focal point of the national response system then, and now, is the Federal On-Scene Coordinator (OSC), who is in charge of all Federal response activities. The OSC for spills in coastal and marine areas is usually a pre-designated officer from the U.S. Coast Guard, while OSC's for inland spills are furnished by the U.S. Environmental Protection Agency. In cases where the party responsible for the spill is both able and willing to undertake the cleanup, the OSC monitors the cleanup and stands ready to take control of the response, that is, to "federalize" the spill, if the efforts of the spiller are inadequate. In the Exxon Valdez case, the spill was not "federalized" because the OSC determined Exxon was taking effective action to eliminate the threat to the environment from the oil remaining in the tanker and proper action to remove the spilled oil. The OSC initiates a Federal response in cases where the spiller is unknown or is unable or unwilling to undertake the cleanup.

OSC's are supported by Regional Response Teams (RRT's) consisting of 14 Federal agencies and State representatives in each of the ten Federal regions plus one each in the Caribbean, Pacific Ocean and Alaska. During a spill, the RRT's serve as an advisory body to the OSC and a conduit to the specialized response capabilities of their member agencies. When not involved in spills, RRT's develop and strengthen regional contingency plans, evaluate regional preparedness and coordinate training and exercises for response personnel.

RRT activities are supported at the national level by the National Response Team (NRT), a planning and coordinating body consisting of the same 14 Federal agencies that stands ready to provide assistance during a large spill but which does not itself respond directly. The NRT coordinates the activities of its member agencies to ensure a unified Federal approach on policy questions about national response capabilities and preparedness for oil and hazardous substance incidents. The NRT, at the request of EPA Administrator Reilly and Transportation Secretary Skinner, has prepared a preliminary report on the response to the Exxon Valdez spill for the President.

NOAA represents the Department of Commerce on the NRT and the thirteen RRT's. It has, for example, played a major role in the Alaska RRT's preplanning for the use of dispersants and the development of guidelines for wildlife pretection. Dispersant use guidelines for Prince William Sound were approved by the RRT two weeks before the Exxon Valdez spill, along with guidelines for in-situ burning of spilled oil.

Federal OSC's have a number of "special forces" they can draw on during a spill response. One of these is provided by NOAA through its Hazardous Materials Response Branch, which maintains a team of nine highly-trained Scientific Support Coordinators (SSC's) located in Coast Guard Districts around the country to facilitate rapid response. The SSC's are backed by an interdisciplinary group of chemists, ecologists, and oceanographers that uses a nationwide communications network to provide timely expert advice that includes: a) microcomputer trajectory models that show in graphic form the predicted movements of pollutants in water or air; b) identification of sensitive environments and recommended protective measures; and c) automated data management to speed the flow of accurate and timely information to all responders. SSC's also coordinate the inputs of scientific information to the OSC from all sources, including universities and other private entities, and assist the OSC by briefing affected communities on scientific issues that arise during spill response. When not working at a spill, SSCs provide scientific assistance to RRT's and OSC's in contingency planning and response training.

NOAA's responsibilities under the NCP to support response actions are described in more detail in our organizational response plan. I will be glad to make copies of this plan available to the Committee if you would like them.

The NCP also designates certain Federal officials, among them the Secretary of Commerce, to act on behalf of the public as trustees for natural resources that may be injured or destroyed by discharges of oil or releases of hazardous substances. These officials, acting under authorities provided by the Clean Water Act (for oil discharges) or the Comprehensive Environmental Response, Compensation and Liability Act (for hazardous substances releases), can claim damages from spillers for the environmental harm done by the spill. Monies recovered through such claims are to be used to restore, replace, or acquire the equivalent of the injured natural resources. The Secretary has directed NOAA to carry out his responsibilities as a Federal trustee for living and non-living natural resources in coastal and marine areas.

When the Exxon Valdez grounded on Bligh Reef in the early morning hours of March 24, NOAA was at the scene quickly. Its SSC in Anchorage was called the same morning and reached Valdez within hours of being notified. By the end of that day, NOAA's Hazardous Materials Response Branch had a team of six people and a NOAA helicopter available in Valdez to assist the OSC. Predictions of the movement of the spilled oil, together with weather and tidal forecasts, were provided within the first 24 hours of the accident. Routine overflights to map the extent of contamination were started March 26. Daily reports and maps on the movement of the oil and extent of contamination are being provided to the Federal OSC and other responders to facilitate coordination of the cleanup. Maps of environmentally sensitive areas within Prince William Sound, prepared by NOAA in 1983, were given to the OSC and Exxon's on-scene personnel to help them assign priorities for protective measures. The Hazardous Materials Response Branch now has more than 20 of its staff working in

Valdez, Seward, Homer, Kodiak, and Anchorage coordinating scientific response to the spill and briefing affected local communities.

NOAA's representatives to the Alaska RRT have also provided technical information to the OSC on dispersant use, shoreline clean-up, and concentrations of petroleum hydrocarbons in the water column. NOAA acquired and deployed portable weather stations and data gathering buoys for improved tracking of the spilled oil in Prince William Sound and the Gulf of Alaska.

To fulfill its trustee responsibilities, scientists of NOAA's National Marine Fisheries Service moved quickly into the field to gather baseline information on water quality and presence of marine mammals and fisheries resources before the oil reached areas of particular concern. (In this connection, it should be noted that the State of Alaska has closed the herring, sablefish, and shrimp fisheries of Prince William Sound.) This work, financed by the diversion of NOAA program resources, was carried out cooperatively with field staff from the U.S. Departments of the Interior and Agriculture, and the Alaska Department of Fish and Game, whose trust resources have also been affected. The trustees have moved quickly to form a coordinating council in Alaska and supportive management teams to oversee ongoing damages assessment studies and finalize the comprehensive damage assessment plan.

Along these same lines, NOAA's Chief Scientist is the presiding officer of the National Ocean Pollution Policy Board. Under the auspices of this Board an interagency planning group has already prepared a draft extended Studies Program Plan, as a strategy for conducting research on the Exxon Valdez spill. This draft will be reviewed at a special meeting of the Board scheduled for May 15, 1989.

Thank you, Mr. Chairman. I will be glad to respond to any questions that you or other members of the Committee may have.

TESTIMONY OF DENNIS KELSO
BEFORE THE HOUSE SUBCOMMITTEE
ON COAST GUARD AND NAVIGATION
May 11, 1989

Mr. Chairman and Members of the Subcommittee:

My name is Dennis Kelso. I am the Commissioner of the Alaska Department of Environmental Conservation. I want to thank you for the opportunity to present the views of the State of Alaska on the urgent need to review and reform federal laws dealing with oil spill response and tanker safety.

The Alaska Department of Environmental Conservation (ADEC) is the State regulatory agency with primary responsibility for environmental protection.

In the weeks since the EXXON VALDEZ spilled 11 million gallons of oil in Alaska's Prince William Sound, Alaskans and much of the nation have experienced the anguish and frustration that results from such a tragedy. After the spill, I was in Prince William Sound virtually every day for 5 weeks. I have witnessed the confusion and delays in responding to the spill. It has been a painful learning experience. I'd like to share with this Subcommittee some of what we have learned, what we can do to prevent these incidents, and how we should deal with them.

The key to protecting ourselves from future oil spills is preventing them. Once the oil is on the beaches, we're already behind and the damage is in the water and done. I believe the EXXON VALDEZ spill could have been prevented and that through reasonable legislation we can prevent others in the future.

Governor Cowper, in testimony before the Senate Subcommittee on Environmental Protection, recommended that the federal government take immediate concrete steps to minimize the chances of another massive spill. Specifically,

* the Coast Guard should make a thorough review of tanker design, construction, and operations so that human errors will not result in loss of a tanker or its cargo;

* Coast Guard licensing requirements should be revised so that licenses are reexamined more frequently and information on drug and alcohol violations is available to prevent giving command of a supertanker to a person who could be incapacitated;

* at the same time we should conduct a thorough review of the use of drugs and alcohol in the maritime industry and

look for new measures to prevent their contributing to another tragedy; and

* a thorough review should be made of Coast Guard radar, navigational aids, navigational systems, and other safeguards throughout the nation, so that shore-based radar is always available when a tanker is maneuvering in dangerous or sensitive waters.

We are pleased to see that H.R. 2158 embodies many of these recommendations. Accordingly, we urge the prompt enactment of legislation which incorporates these and other needed changes in federal law and policy.

We must also reexamine the system for responding to oil spills. The federal and state governments and the industry must prepare -- in advance -- for the next large spill. Again, we recommend:

* that Congress require all tankers to have the ability to contain and clean up oil, e.g., by having equipment and trained personnel on board to deal with large spills the moment they happen;

* that the National Oil Spill Contingency Plan be changed so that:

  * the State and the Coast Guard have strong authorities to direct the response of large spills, without waiting to see if the responsible party -- who will ultimately pay the bill -- does an adequate job; the responsible party should still be required to shoulder the financial responsibility and full liability

  * a world-wide computer inventory of spill equipment and experts is maintained, so that whatever is needed can be put on site without delay;

  * computerized data on geographical, meteorological and oceanographical characteristics of coastal areas is maintained, so equipment and personnel can quickly be sent to wherever they will do the most good.

The State also recommends that we reexamine the entire structure of contingency planning, to make sure that the right equipment and personnel are always available at strategic locations throughout the country, always fully trained, and always ready to respond at a moment's notice.

We have also learned the importance of having emergency funding available at all times. I mean funding for both immediate containment and cleanup work, which is enormously expensive, and for giving emergency ~~relief~~ to people whose property and livelihoods are damaged by a spill. We cannot depend on the oil industry to fill these needs. The State recommends:

* a comprehensive look at existing federal funds available for containment and cleanup, so that they are funded at the level needed for a major catastrophe, and so that access is quick and efficient;

* the same sort of comprehensive look at the federal programs available for emergency aid to individuals; and

* a comprehensive look at ways to ensure that all claims for damages caused by an oil spill will be paid by the responsible parties.

We realize that we need to reexamine whether existing civil and criminal penalties in federal law are adequate for major oil spills. Existing penalties are not designed for large spills and contain unrealistically low limits. We need to have tough laws that give a real incentive to industry to avoid spills and clean them up -- not merely to treat them as another cost of doing business.

Finally, the State of Alaska urges Congress to set up a new program of intensive research into oil spills: how to prevent them and how to deal with them once they happen. We should not have to use a spill like that in Prince William Sound as an experimental laboratory to find out the best way to contain and clean up oil; we should know how in advance. An aggressive research and development program is essential.

The State of Alaska is not, however, waiting for the federal government to fix everything for us. We already have begun many of these tasks ourselves. Terminal and tanker activities in Valdez are operating under stringent conditions set out in an emergency order. We have requested, and the Legislature has approved a multi-million dollar appropriation for clean-up. We have begun our own thorough review of contingency planning. Every division of State government has been involved in addressing social, fiscal, and resource impacts in the affected communities of Prince William Sound. Already, we have identified in State government the computer capability to compile on one database all the information needed to respond to a spill. Finally, in looking to the future, we have begun identifying areas of needed change in state law. The Legislature already has passed several measures requested by the Governor, such as a strict liability measure for oil spills. Details on some of these activities are included as appendices to our written testimony, and we request that they be included in the record.

But we cannot do it alone. What we are looking for now is cooperation in resolving those issues that go beyond the state level, that have the potential to assist coastal states throughout the nation. We look forward to working with you to identify ways of doing that.

I thank the Subcommittee for the opportunity to provide these recommendations on behalf of the Governor. It is my hope that this spill -- as tragic as it is -- will result in constructive measures to insure that such accidents can never happen again -- in Alaska or anywhere else.

Attachment

STATE OF ALASKA

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

IN THE MATTER OF)
ALYESKA PIPELINE SERVICE COMPANY)
OIL SPILL CONTINGENCY PLAN)
Respondent)

EMERGENCY ORDER

Pursuant to AS 46.03.820, which authorizes the Department of Environmental Conservation to issue orders to prevent and abate pollution of the environment on an emergency basis, and based upon an investigation conducted by the Department of Environmental Conservation, I find and order as follows:

FINDINGS

1. Alyeska Pipeline Service Company ("Alyeska") has in place, pursuant to AS 46.04.030, an oil spill contingency plan ("plan") which prescribes Alyeska's response to an oil spill from Alyeska's Marine Terminal or a tanker calling on the terminal.

2. On March 24, 1989, the T/V Exxon Valdez ran aground on Bligh Island after taking on approximately 53,094,510 gallons (1,264,155 barrels) of crude oil from Alyeska's Marine Terminal.

3. The T/V Exxon Valdez discharged approximately 10,000,000 gallons (240,000 barrels) of crude oil following the grounding.

4. Alyeska is responsible under the plan for immediate implementation of the plan and is obligated under the plan to, *inter alia*,:

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a. initiate reconnaissance actions to determine the exact location and extent of the spill;

b. initiate control actions to minimize the spread of oil and to prevent oil from reaching sensitive areas;

c. initiate cleanup actions for recovery of oil in conjunction with containment action as required.

5. Specifically, the plan provides for an oil spill response for a scenario of a 200,000 barrel spill in Prince William Sound. Under that scenario, Alyeska is obligated to, inter alia,:

a. move containment booms, skimmers, response equipment, support equipment and personnel (including private contractors) to the site within 1 to 5 hours;

b. deploy the closest empty or light loaded tanker to the spill site;

c. boom off the leaking vessel to contain the spilled oil;

d. undertake exclusion actions to prevent spilled oil from contaminating designated sensitive areas; and

e. immediately begin recovery of oil.

6. Alyeska did not fully boom off the T/V Exxon Valdez until more than 72 hours following the grounding and long after the vast majority of the oil had been discharged from the vessel.

7. The time period Alyeska took to deploy the plan's designated equipment far exceeded the operational schedule set out in the plan and Alyeska undertook no effective containment or cleanup of the oil.

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8. Alyeska undertook no exclusion actions to prevent spilled oil from approaching communities or sensitive areas.

9. As of April 4, 1989, only approximately 9000 barrels had been recovered. Also, the area of the spill's impact exceeded 1640 square miles. This spill fouls hundreds of miles of shoreline. It severely impacts water quality, fisheries resources, waterfowl and marine mammals.

10. Alyeska is under a mandatory and continuing legal obligation to contain and cleanup the existing Valdez spill. Alyeska's inadequate response to the spill under the plan to date demonstrates its inability to respond as required under the plan to any new oil spills.

11. Continued operation of Alyeska's Marine Terminal and tanker traffic at the current crude oil flow rate creates a substantial potential risk of an additional oil spill at Alyeska's Marine Terminal or in Prince William Sound.

12. If an oil spill occurs, it will result in or is likely to result in irreversible or irreparable damage to the natural resources or environment and will result in or is likely to result in an imminent or present danger to the health or welfare of the people of the state.

13. Alyeska has demonstrated an inability to respond as required under its plan. Therefore, it is necessary to add supplemental procedures to the plan. A Notice of Modification of Alyeska's oil spill contingency plan has been ordered by the Department of Environmental Conservation. It would be prejudicial to the interests of the people of the State of Alaska to

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delay action on the Notice of Modification until an opportunity for a hearing can be provided because of the substantial threat of a catastrophic oil spill for which there is not an adequate response capability in place. Therefore, an Emergency Order under AS 46.03.820 is appropriate.

14. Furthermore, the Governor of the State or Alaska has declared the Valdez oil spill an emergency under AS 26.23.. AS 26.23 020(b) and AS 26.23.020(g) authorize the Governor of the State of Alaska to issue orders to control ingress to and egress from an emergency site to achieve the purposes enunciated in AS 26.23.010 (1) and (7).

ORDER

Based upon the foregoing findings, I order as follows:

1. Alyeska must have in place the complete core inventory of all terminal contingency plan equipment for the Marine Terminal described on pages 9-133 and 9-134 of the plan, within 72 hours from receipt of this Notice. Alyeska must identify to DEC in writing, within 72 hours of this notice, the storage locations of all core contingency plan equipment. Thereafter, Alyeska may not use core contingency plan equipment in any operation except oil spill response and training;

2. Alyeska must designate a round-the-clock oil spill response crew of a minimum of 12, plus crew supervisors, located at the terminal, which crews and supervisors shall be immediately available and have as their sole responsibility oil spill response. The terminal response crew is in addition to the manpower required in paragraph 8 a. below. The minimum terminal

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crew may be augmented by additional crew at the terminal or at other locations to enhance oil spill response capability. Alyeska must identify to DEC in writing, within 72 hours of this notice, the designated shift supervisors and, within 7 days from this notice, the shift crews. Alyeska must, thereafter, notify DEC in writing within twenty-four hours of any crew or supervisor changes.

3. Alyeska must boom all tankers upon arrival. Alyeska must inspect boomed areas hourly for spills; Alyeska must inspect for the presence of oil in all boomed areas prior to the tanker deberthing;

4. Alyeska must deberth tankers only during daylight (dawn to twilight) hours until it complies with paragraphs 1 and 2 above;

5. Alyeska must load only one tanker at a time until it complies with paragraphs 1 and 2 above;

6. Alyeska must ensure that two tugs accompany all outgoing tankers to Hinchinbrook Entrance southeast of Seal Rocks;

7. Alyeska must ensure that a pilot be aboard an accompanying tug or on all outbound tankers to Hinchinbrook Entrance.

8. Alyeska must acquire and have in operation as soon as possible but no later than May 15, 1989, the best available equipment and technology and the capability to respond to, and arrive on-scene within two hours of notification, a 10,000,000 gallon oil spill or a distressed tanker between the Hinchinbrook Entrance and Potato Point. Response capability at the scene shall include but is not limited to:

a. thirty-thousand feet of heavy duty, deep skirted, rough water, seagoing boom which is capable of withstanding and performing in a 3 meter sea state;

b. immediate deployment and management of the boom so as to contain spilled oil and prevent it from impacting shoreline;

c. recovery equipment capable of removing oil from the water at a rate of not less than 10,000 barrels per hour;

d. pumping, transfer, and lightering equipment, and storage capacity and ancillary storage transfer equipment, adequate to receive, transfer, and store recovered oil at a rate of not less than 10,000 barrels per hour without impeding the necessary recovery rate;

e. pumping, transfer, and lightering equipment, and storage capacity, adequate to remove and store all oil from a distressed tanker at a rate of not less the 10,000 barrels per hour without impeding the necessary recovery rate; and

f. sufficient vessels, manpower, equipment and appurtenances adequate to accomplish all of the above.

9.a. Alyeska's Valdez Marine Terminal operations center must maintain direct radio contact with the bridge of each incoming and outgoing tanker, accompanying tugs, and Alyeska's oil spill response vessels while an incoming or outgoing tanker is located at any point between the terminal and Seal Rocks at the Hinchinbrook Entrance. Alyeska must record all radio transmissions and preserve each recording for a period of at least 30 days, unless Alyeska receives a notice under paragraph 9.b.

below, in which case Alyeska shall immediately transmit the original of the recording(s) to DEC's Valdez District Office.

b. Alyeska must require each tanker, accompanying tugs, and Alyeska's oil spill response vessels to notify Alyeska immediately by radio transmission if an incident occurs or there is any irregularity or indication of a problem which threatens or may threaten the tanker or its cargo (including ballast water). Specifically, notice is required if the tanker leaves both of the U.S. Coast Guard designated Prince William Sound and Valdez Arm traffic lanes (except when an outbound tanker leaves the lanes at their Hinchinbrook Entrance terminus).

c. As soon as Alyeska receives a notice under this paragraph, it must alert all its oil spill response teams and initiate all actions needed for an immediate response. Alyeska must also immediately provide oral notice to the Department of Environmental Conservation Valdez District Office Supervisor. The two hour time period during which Alyeska must respond to a tanker oil spill will begin upon its receipt of any notice under this paragraph.

10. Alyeska must prepare, by no later than June 1, 1989, an application for approval for a revised oil spill contingency plan which incorporates the modification terms and conditions in paragraphs 1, 2, 3, 6, 7, 8 and 9 above and which adds supplemental and enhanced oil spill response capability.

11. In the event Alyeska is unable to comply with the deadline in paragraph 8, it shall notify DEC in writing within 7

days of this Order and describe in detail the compelling reason why the deadline cannot be achieved. Submitting a notice under this paragraph does not stay the operation of this Order unless the Order is modified in writing by the Department of Environmental Conservation.

PROCEDURES

Respondent has the right to present evidence or request a hearing to review this Order at any time within 15 days of service. The department may schedule a hearing at the earliest possible time of such a request is made pursuant to AS 46.03.820(b) and (c).

Any request for hearing or submission of evidence should be made by delivery of the enclosed Notice of Defense to the Department of Environmental Conservation, P.O. Box 0, Juneau, Alaska 99811-1800. Failure to request a hearing or submit evidence within the time period specified constitutes a waiver of respondent's right to review this Order.

The submission of an application or the scheduling of hearing does not stay the operation of this Order.

PENALTIES

Any person who violates this Order is subject to criminal prosecution under AS 46.03.790. Additionally, the person is liable in a civil action under AS 46.03.760 for a sum of not less than $500 nor more that $100,000 for the initial violation and not more than $5,000 each day thereafter that the violation continues. Penalties beyond the minimum amount are computed on the basis of liquidated damages, reasonable administrative costs incurred by the department, and the economic savings realized by the respondent.

AS 46.03.820(d) authorizes the Attorney General to seek enforcement of this Order if respondent fails to immediately comply with its provisions.

Additionally, if respondent disobeys or resists the terms of this Order, the department may, under the authority of AS 44.62.590, petition the Superior Court for an order directing respondent to show cause why it should not be held in contempt of court. If respondent is adjudged in contempt, respondent may, under the terms of AS 09.50.050, be imprisoned until such time as the terms of the Order are met.

This Order does not constitute a waiver by the Department of Environmental Conservation of the provisions of any other state law or regulation and the Department of Environmental Conservation reserves all lawful remedies in equity, by statute, or the common law.

Dated April 7, 1989

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Dennis D. Kelso, Commissioner Alaska
Department of Environmental Conservation

Attachment

NEWS RELEASE

STATE OF ALASKA

OFFICE OF THE GOVERNOR
P.O. BOX A
JUNEAU, ALASKA 99811

STEVE COWPER,
GOVERNOR

FOR INFORMATION CONTACT:

DAVID RAMSEUR
PRESS SECRETARY

TERENCE O'MALLEY
DEPUTY PRESS SECRETARY

(907) 465-3500

FOR IMMEDIATE RELEASE
May 5, 1989
No. 89-83

STATE IMPOSES NEW TANKER SAFETY REQUIREMENTS ON ALYESKA

JUNEAU--Gov. Steve Cowper announced today that the state has stiffened requirements on the Alyeska Pipeline Service Co. for its ability to deal with oil spills.

In a modified emergency order, the state required the consortium to demonstrate its ability to respond to possible oil spills in Prince William Sound by May 15.

Specifically, Alyeska must have 30,000 linear feet of sea boom on hand; the ability to recover oil from the water at a rate of 10,000 barrels an hour; the ability to transfer oil from a stricken tanker at a rate of 10,000 barrels an hour; and sufficient lightering, storage and transfer equipment to accommodate those recovery rates.

The order also requires the addition of new large-scale vessels and equipment, and a response time of both personnel and equipment within 10 hours of an incident near Hinchinbrook Entrance. Response times for incidents closer to the Valdez terminal are shorter.

"We want the industry prepared to respond immediately to the first sign of a tanker problem in Prince William Sound," Cowper said.

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"We want to make sure nobody drops the ball if we ever have another major spill in Alaska waters," the Governor said.

State Environmental Conservation Commissioner Dennis Kelso, who signed the order May 3, said: "We are taking action to prevent another uncontained spill which might again foul shorelines, kill wildlife, spoil fisheries and tear apart communities.

"This emergency order is a first step, but it's only a start. These requirements move the Alyeska consortium toward correcting Alyeska's demonstrated inability to respond to major spills under their original contingency plan," Kelso said.

The new order, a modification of an emergency order imposed on Alyeska April 7, establishes procedures for Alyeska's operations, including:

* Outgoing tankers must be escorted by two tugs to Hinchinbrook Entrance southeast of Seal Rocks.

* Licensed pilots must remain on out-going tankers further into the Sound, to a point past Bligh Reef where the Exxon Valdez ran aground.

* An effective alcohol testing program in place by May 15 for command officers, which include the captain and chief engineer.

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* Alyeska terminal must maintain radio contact with out-going tankers and tugs between the terminal and Seal Rocks at Hinchinbrook Entrance.

* Tankers, tugs and oil spill response vessels must notify Alyeska of any incident or irregularity which may threaten the tanker or its cargo.

* Alyeska must designate a 24-hour oil response crew of a minimum of 12 located at the terminal. The company must alert its emergency response crews whenever a tanker signals it may be trouble, as well as notify the Department of Environmental Conservation.

The new emergency order is an interim measure and the state is considering other requirements as Alyeska's contingency plan is examined further. Alyeska has until Aug. 1 to submit a revised oil spill contingency plan to DEC.

A violation of the new order is subject the criminal and civil penalties of up to $100,000 for the initial violation and up to $5,000 a day thereafter.

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Attachment

THE ALASKA STATE APPROVAL PROCESS FOR ALYESKA PIPELINE SERVICE COMPANY'S OIL SPILL CONTINGENCY PLAN FOR PRINCE WILLIAM SOUND

The National Transportation Safety Board has asked for information and background regarding the State of Alaska's approval criteria used in review of oil spill Contingency Plan. This summary references those criteria, explains them and outlines their application for review of the Alyeska Pipeline Service Company Contingency Plan for Prince William Sound during the period from 1977 to 1989.

I. APPROVAL CRITERIA

Criteria for submittal, review and approval of Contingency Plan exist as State regulations. The current regulations have been attached as an exhibit. See 18 AAC 75.305 to 395 entitled "Oil Spill Contingency Plan." Pertinent sections of these regulations are highlighted below.

Section 325 "Contingency Plan contents" provides details of the information that must be submitted by owners of large oil terminal facilities or by owners, charterers or operators of oil tank vessels. Such information includes estimates of the size and behavior of oil spills expected to occur during the lifetime of the operation. Also required are tables of equipment to be used to clean up oil spills. This section asks for procedures for use of chemicals for oil spill control. Other information includes estimates of response time to contain and to clean up an oil spill.

Section 335 asks for more Contingency Plan information from operations of oil terminals. This additional information includes predictions of oil spill movement, based on local weather and currents. Terminal operators also list environmentally sensitive areas in areas that might be affected by oil spills, such as salmon streams, waterfowl nesting areas, marine mammal areas, salt marshes, and so forth. This section further asks for descriptions of areas of public concern that might be affected by oil spills such as parks, historical sites, boat harbors, and so forth.

Section 345 asks for more information by owners or operators of tank vessels. Of note is information about special towing equipment and fittings.

Section 355 "Approval criteria" details the standards by which the State will approve a Contingency Plan. These include having equipment adequate to safely clean up the most likely spill, mentioned in Section 325, within 48 hours. Also, the plan must set forth the response capability to protect sensitive environmental areas before predictions of spill movement show impact to those areas.

Section 375 provides for the conduct of an exercise for the purpose of testing the adequacy of the Contingency Plan and its execution. In addition to this regulation, the State reviews the conduct of the Alyeska spill response team in responding to oil spills which occur from time to time. The last such spill involving a leaking tanker vessel prior to the grounding of the EXXON VALDEZ occurred on January 4, 1989, and the State concluded that Alyeska's response to this accident was adequate.

II. HISTORY OF CONTINGENCY PLAN REVIEW

The Federal Trans-Alaska Pipeline Authorization Act required Alyeska to develop a Contingency Plan to clean up oil spills. Under the TAP Act, the authority of State approval for the Contingency Plan was limited to on-land oil spills. The State had no TAP review authority for those sections of the Contingency Plan dealing with the Valdez Marine Terminal and Prince William Sound.

In mid-1977, State pipeline biologists and the Alaska Department of Environmental Conservation officials recorded concerns about adequacy of Contingency Plan for the terminal and Prince William Sound. Despite objections from State officials, those Contingency Plan were approved by the Federal Government and start-up of pipeline operations began.

By September 1977, the State enacted regulations that allowed for Contingency Plan authority. On December 22, 1977, State inspectors found that equipment specified in the existing Alyeska Contingency Plan for Prince William Sound was missing, broken or untested. Alyeska had also failed to notify the State of nonreadiness of various cleanup equipment.

On February 1, 1978, the State advised Alyeska of pending State review of the Terminal and Prince William Sound Contingency Plan and the violations of Contingency Plan regulations.

Meanwhile, in mid-September 1977, Exxon and seven other oil companies and shippers filed suit to restrain the State from enforcing its Contingency Plan regulations and other tanker safety laws. In mid-1978, the Supreme Court struck down Washington State law that regulated tanker safety features. Alaska had joined that action. As a result, the Alaska oil spill contingency regulations were repealed and repromulgated in September 1981.

On January 17, 1981, in 70 knot winds in Hinchinbrook Entrance, the tanker PRINCE WILLIAM SOUND lost power for 17 hours and drifted 28 miles across Prince William Sound. Salvage tugs could not pass a tow line because of rough seas and lack of steam for winching cables aboard. The tanker regained steam power only 1500 yards from going aground near Columbia Glacier. When State Contingency Plan went into effect in September 1981, they included the provision calling for emergency towing devices aboard tankers.

On November 13, 1981, Alyeska resubmitted the Valdez Marine Terminal and Prince William Sound Contingency Plan for State review and approval. On March 23, 1982, the State advised Alyeska that these Contingency Plan contained deficiencies, including estimated size of most likely spill, inadequate response times, citing criteria contained in the 18 AAC 75.

On April 22, 1982, Alyeska requested an adjudicatory hearing to appeal the State's March 23 decision. Alyeska questioned the State's jurisdiction over Alyeska's Contingency Plan for Prince William Sound.

On June 22, 1982, Alyeska submitted an addendum to their Contingency Plan which provided equipment response and calculations to show that a spill of 100,000 barrels in the middle of Prince William Sound could be cleaned up in less than 48 hours.

In January 1983, after Alyeska had demonstrated spill response and tanker towing capability in an exercise, the State approved the Contingency Plan for three years.

On May 1, 1984, State inspectors reported severe personnel cuts in the trained oil spill response teams at the Alyeska Valdez Marine Terminal. Oil response training programs were being reduced. The reliability of outdated oil recovery equipment was questioned by State regulators.

On October 17, 1984, Alyeska conducted an exercise to demonstrate their response capabilities to oil spills. Response efforts failed to contain the hypothetical spill. Certain boom and vessels appeared inadequate. Alyeska commented that they would have responded differently if this had been a true spill, indicating to the State that Alyeska's Contingency Plan failed to provide a sufficient commitment to training of those assigned the spill response team.

In response, the State began requiring Alyeska to submit detailed information regarding oil spill training programs. Training programs were broken into elements according to equipment and response actions. Alyeska submitted detailed lists of personnel and their individual records of monthly training were compiled.

In mid-1985, Alyeska hired a new oil spill coordinator, amid State concerns about Alyeska's failure to follow up on prior commitments made after oil spills on ways they could improve their Contingency Plan.

In late 1985, the State dedicated staff time to a lengthy, deliberate process of reviewing the Terminal and Prince William Sound Contingency Plan and conducting inspections and exercises to ensure the plans were implemented.

On May 1, 1986, after months of exchanges of plan information and review, the State advised Alyeska of a number of issues that must be formally addressed in the next version (the current 1987 version) of the Contingency Plan. The State requested Alyeska to address their response to larger spill scenarios. Specifically, the State requested Alyeska to prepare and submit a 200,000 barrel spill scenario in Prince William Sound resulting from a tanker collision or grounding. The State also asked Alyeska to add a section to the Contingency Plan dealing with the use of dispersants.

After several meetings and exchanges, on October 3, 1986, Alyeska responded. They presented studies and statistical information that a spill of 200,000 barrels would only occur once every 241 years. They stated that, within the expected 30-year lifetime of the Valdez Marine Terminal, the most likely spill volume would be 1,000 to 2,000 barrels. Alyeska also provided dispersant information for Exxon's Corexit 9527, assuming a dispersant to oil ratio of 1 to 20, and other information.

In their October 3, 1986 letter, Alyeska described their intended response to a 200,000 barrel spill about 30 miles out in Prince William Sound. They believed it highly unlikely that a spill of this magnitude would occur (estimating one such spill would occur every 241 years), especially with licensed masters operating tankers of American registry. Their spill movement predictions indicated impacts to Eleanor Island, Naked Island, Lone Island and the Main Bay shoreline, among other areas. Their response stated that two oil skimmers and 4,500 feet of boom would be on-scene in three hours. A barge, one more skimmer, and 3,000 more feet of boom would be on scene in five hours.

On October 23, 1986, the State requested Alyeska address protection of fish hatcheries in the Contingency Plan, specifically the Main Bay hatchery, predicted for impact from the 200,000 barrel spill. The State asked for details on stockpiles and transportation times for dispersant use and advised that, once the Regional Response Team approved dispersants for use in Prince William Sound, those details be added to the Contingency Plan.

After reaching agreement on the use of dispersants in Prince William Sound in 1986, on March 20, 1989, the Regional Response Team specifically approved the zone designation plan for the Sound. The agreement provided for State preapproval of the use of dispersants in Zone 1. The use of dispersants in Zones 2 and 3 is authorized after receipt of concurrence by the EPA and the Alaska Department of Environmental Conservation to protect sensitive wildlife and other resources.

STATEMENT OF

DR. CARL H. OPPENHEIMER

before the
COAST GUARD AND NAVIGATION SUBCOMMITTEE
of the
MERCHANT MARINE AND FISHERIES COMMITTEE

of the
UNITED STATES HOUSE OF REPRESENTATIVES

Thursday, May 11, 1989

Mr. Chairman and members of the Committee, I am Dr. Carl Henry Oppenheimer. I am a Professor of Marine Science at the University of Texas at Austin and contemporaneously the principal scientific advisor to Alpha Environmental, Inc., a private firm with headquarters in Austin, Texas. I received my Ph.D. in Marine Microbiology from the Scripps Institute of Oceanography. From 1964 to 1971, I was at Flordia State University where I established their Department of Oceanography. In 1971, I moved to the University of Texas Marine Science Institute where I served as Director from 1971 to 1973. My published articles, papers, and books are included in my curriculum vitae, a copy of which has been provided to the Committee staff. The views which I express are my own, and while they may be shared by my colleagues at Alpha Environmental, they should not be interpreted as representing the views of the administration or faculty of the University of Texas.

I am pleased to be here today to discuss with you the potential of harnessing one of nature's own cleansing techniques, microbial degradation, to counteract unanticipated oil spills in the ocean or in fresh water. Recent events have graphically demonstrated once more how greatly the United States needs an improved response for the all too human costly accidents that introduce huge volumes of unwanted oil into especially sensitive areas of the environment such as Prince William Sound, Alaska.

While the mind may rebel at the thought, future accidents are inevitable because man produces, refines and transports more than 5 billion gallons of hydrocarbons each day over our lands and waters.

For more than forty years, I have been a teacher and a scientist. In a somewhat old fashioned way, I consider myself a "pragmatic naturalist" inclined to balancing the needs of the untidy world of work and industry in which we all live with the frequently idealized world of a pristine environment unspoiled by man. I recall a comment once made by Professor Athelstan Spilhaus, a well known marine scientist who worked with Senator Pell to establish the Sea Grant Program, who said that we must maintain a proper "Ecolibrium" which is the balance between desired ecology and necessary economy.

Throughout my career, I have pursued answers to the broad question of the interaction of naturally occurring microorganisms on hydrocarbons not only in the university laboratory, but also in that original, larger, and more demanding laboratory: Nature herself.

I am now 67 years of age. During my long career I have spent a large amount of public funds in my research in the laboratory and in the field and have published extensively on marine ecology. Now as a senior scientist, I feel a compelling obligation to translate my years of experience into a practical application to solve some of our current problems in the environment. My goal is to apply the use of naturally occurring microorganisms in the removal or recycling of pollutants. My colleagues and I at Alpha Environmental like to describe this part of our work as "environmental microbiology".

II.

When man introduces large amounts of oil into the environment, it is called pollution. When nature introduces large amounts of oil in sediments, it is called energy resources.

The word "pollution" is a term designated by man, wherein the introduction of a substance that may be in competition with environmental balance stresses our environment. Oil or hydrocarbons have been known to momentarily unbalance our environment. The massive spillage of ruptured oil tankers during World War II; the Torrey Canyon spill off the coast of France; the Santa Barbara blow-out; ruptured oil storage tanks near Pittsburgh, Pennsylvania; the IXTOC I blow-out in the Gulf of Mexico; and the recent Exxon Valdez spill in Alaskan waters are well known examples of massive hydrocarbon pollution which have elicited varying degrees of governmental and industry response.

Certainly, oil pollution of the environment is nothing new. Hydrocarbons have been a part of living protoplasm and oil seeps in our environment since life on earth began. The earliest evidence of "Rock Oil" now known as crude oil was from natural seeps in LaBrea near Los Angeles and on the island of Trinidad; at Coal Oil Point off California and at several places in the Mediterranean Sea. Ancients used these rock oils for lamps, to preserve cordage and sails, to waterproof vessels and for medicinal purposes. Tallow was used for lubrication. Evidence of the importance of natural oil has been documented throughout the technical and specialized literature.

The late Professor Claude E. ZoBell, my PhD Chairman at the Scripps Institute of Oceanography, University of California at La Jolla, reviewed data on microbial oxidation of petroleum and products in 1964. His conclusions extracted below from this early publication still holds true today.

> "Nearly all hydrocarbons, including petroleum are oxidized by certain bacteria which are universally distributed in shallow marine waters."

He called these populations polyphagous species which may oxidize a wide range of petroleum fractions. "It is estimated that the bacterial oxidation of mineral oils may attain rates as high as 36 to 360 grams per cubic meter per year."

My own research started in 1949 with financial support by American Petroleum Project 43A, "The Origin of Hydrocarbons". My doctoral dissertation was on the effects of high pressure on bacteria. Since then I have continued research on the origin and fate of oil in the environment. I was a member of the President's Oil Spill Response Panel after the Santa Barbara incident in 1969. For two years, this panel of experts reviewed current and proposed oil spill response techniques.

From this first hand experience and others like it over the years, I have a strong sense of reliving the past when I study the response to the Exxon Valdez spill. It seems that current oil spill response techniques have not progressed much over the past few decades. An analysis of the annual meetings of the Oil Spill Conference Proceedings sponsored by the API, Coast Guard and EPA, 1969 to present, seem to support my view. Why should this be so? There are surely many reasons for this apparent stagnation in our national response to oil spills, as well as other pollution challenges facing the United States.

The national weakness for "instant gratification" and quick response, together with a pervasive growth of "risk avoidance" and a "fear of failure" all play a role in the imbalance between practical and field tested responses when measured against the time and fortunes which have been lavished on research grants, in house research facilties and contractors. We talk a great deal about "bioremediation" for pollution emergencies and for Superfund sites, but examples of applications regardless of success are relatively few. Why is this?

I applaud the efforts of this Committee to do what many in the scientific and governmental communities are unprepared to do: take specific steps toward the introduction of microbial techniques as part of the national response to sound and affordable management of our natural patrimony. After all, microorganisms are responsible for the decomposition of the hydrocarbons that have been produced since life began.

When nature produced organic materials such as hydrocarbons, it also produced a mechanism for recycling protoplasm. Life would become extinct if recycling or the mineralization of the protoplasm of plants and animals did not take place. All protoplasm is decomposable. The by products of all metabolism are a part of recycling. Each organism that dies or is killed is immediately subject to microbial degradation, and the inorganic materials within the living organism are released so that life can continue. In the process of metabolism, by products of decomposition are also introduced into the environment.

In retrospect, I feel that much of life has been a preparation for applying a wide variety of laboratory and field experiences to the development of a practical, efficient, and economic methodology for pollution control. Bacteria, in their role of mineralization, decompose the approximately 6 million organic molecules and substances produced in living organisms. These remarkable microorganisms, if properly prepared and applied, can provide a flexible, albeit only a partial solution to modern pollution problems.

Some of these many organic materials are naturally produced hydrocarbons. Nature has provided a natural method to mineralize not only the organic materials but the hydrocarbons as well. Long before I began to advise Alpha Environmental, my primary emphasis was directed at increasing the activity of microorganisms through the application of a simple yet innovative technology.

I needed to (1) select hydrophobic communities of bacteria that would stay within the oil film and not be diluted, (2) develop natural microorganisms that are free from possible environmental and human toxic effects, (3) identify and reproduce microorganisms that are active in oil slicks in the presence of natural infra-red radiation in cold, i.e. northern environments, (4) culture microorganisms which are active in both fresh and salt waters, (5) and enhance or stimulate both growth and concentration to provide a highly concentrated powder of microorganisms with a minimum of 6 months shelf life that might be rapidly transported, rehydrated , or applied directly to most polluted areas.

This has been an ambitious undertaking and I am proud to report that all the above achievements have been realized. As I proposed at the emergency EPA meeting on bioremedial application three weeks ago in Washington D.C., Alpha Environmental is today in a position to deliver enough bacteria to seed one hundred miles of coastline in Alaska at a concentration of 100 thousand bacteria per square centimeter.

I must emphasize here that microbial biodegradation only occurs rapidly in thin layers of oil less than a 16th of an inch. This is due to the fact that oil degrading microbial activity is most active at the oil-water interface. The ratio of exposed surface area to water becomes an important physical effect that greatly influences the degradation rate. Mechanical methods will likely continue to be important in removing massive oil layers, but selected and prior tested bacteria can be used safely and efficiently for removing the remainder which, though lesser in absolute volume, is nonetheless considered a pollutant.

The mechanism of microbial degradation has been well known for many years more or less as Dr. Davis described in his 1946 book on petroleum microbiology. The pathways of degradation have not changed materially. The hydrocarbons are carboxylated to fatty acids which in turn are an energy substance readily utilized by the food chain. In my past research in several marine environments, oils degraded by our bacteria were converted into a foam-like material commonly called a mousse, which was eaten by filter or detritus feeding fish like the mullet. In these controlled artificial spills, no evidence of toxicity was noted during the several days after the oil disappeared, a time period of approximately 3 to 4 hours. For field experiments we used a fairly large inoculum so that results could be seen within the normal tolerance time of busy administrators.

When oil is added to a clean water surface it spreads rapidly. In natural waters organic surfactants are normally present on the water surface from the byproducts of the activities of living marine organisms. These organic compounds, depending on their amount, naturally emulsify surface oil thus producing an emulsion and increasing the oil water surface and a resultant increase in bacterial degradation. Oxygen is normally not a limiting factor in surface activities.

As the bacteria attack the oil, they produce more fatty acids or detergents which enhance the emulsification process. This in turn increases the rate of biological degradation . The combination of processes produces the mousse. Normally the population of hydrocarbon oxidizing bacteria in natural waters is very low.

My approach is to provide very large numbers of bacteria at the time of oil pollution to supplement and to stimulate the degradation process. The degradation rate is directly related to the microbial population. If one can increase the microbial population by several orders of magnitude, then degradation rate follows, and the ecological recovery time should be shortened.

Pollution has been described as the introduction of materials into the environment at a rate exceeding the response for environmental balance. The literature supports the fact that bacteria decompose oil on the surface. It is axiomatic that if one can increase bacterial numbers, degradation will increase. The field application of powdered bacteria at high concentration values is one method to enhance degradation. This process can be further enhanced by using methods to keep the bacteria at the oil water interface and to provide additional nutrients of inorganic nitrogen and phosphorous that may be limiting. Hydrocarbon bacteria normally require inorganic nitrogen and phosphorous. If abnormal levels of organic nitrogen and phosphorous are present, the bacteria will preferentially utilize the organic materials first sparing the hydrocarbons and delaying their decomposition. When the task is cleaning up the effects of an oil spill, one ought to get rid of the oil before artifically feeding in situ bacteria with nutrients.

I have evaluated all the relevant environmental parameters associated with the natural decomposition of hydrocarbons. The literature on the distribution of oil in natural waters and the molecular composition of residual oils establishes the fact that the degradation of the oil does not result in high concentration of specific compounds.

Nature, in its balance, has provided a mechanism associated with diverse microbial populations to decompose all oil materials both simple and complex, straight chain or ring structure. If this did not take place, then our environment would be continually polluted with the residues produced by natural organisms, produced hydrocarbons, and geological seeps of ancient hydrocarbons.

Why can't we accept the fact, supported by research costing billions of taxpayer dollars, that microbial concentrates and associated oil compatible materials may enhance the natural degradation rate when applied expeditiously after a spill.

If studying oil degradation in most laboratories is not going to produce more answers than we have seen to date, then we must turn to my laboratory of choice: the natural laboratory.

Microorganisms in powder form can be added directly to surface films or hydrated and sprayed on shorelines. It does not take specialized equipment, as crop dusting and fertilizer application techniques are well known. If the microorganisms in powder form could be added at the time of the accident they will spread with the oil. The great advantage of using microorganisms that degrade oil and stay within the oil is that they increase in numbers as they degrade the pollutant. The bacterial numbers increase as the oil spreads over the water, continuing its degrading activity on the oil if it moved moves to shore.

When the pollutant food source is gone, the oil degrading bacteria die off. This is a process of efficiency that makes the application technique more attractive to a public already sensitized to the release of genetically manipulated bacteria.

We have arrived at that point in our learning about environmental response to require a modicum of practical applications along with continuing research. It could have been obvious to anyone undetaking environmental research that application was a prime objective rather than prelude to more research. The public might find it hard to understand that much of the expensive and lengthy research which they have underwritten has yielded a vast reservoir of paper with precious few new tools to manage the growing dangers of environmental pollution. One of the things which attracted me to Alpha Environmental is a combination of sophistication and determination to bring new techniques to the marketplace which move the day to day work of environmental management forward at a cost which society can afford.

The use of microorganisms to enhance the removal of oil pollution will not produce adverse effects, has been shown to be effective and is within a practical cost of application. It is my hope that the work of this Committee will move us closer to that goal. In one sense, it would be an extraordinary capstone to my own life's work and the finest gift I could leave to tomorrow's naturalists.

AMERICAN PILOTS' ASSOCIATION
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[illegible]

UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON MERCHANT MARINE AND FISHERIES
SUBCOMMITTEE ON COAST GUARD AND NAVIGATION

TESTIMONY OF

AMERICAN PILOTS' ASSOCIATION

ON

H.R. 2158

May 11, 1989

Mr. Chairman and members of the Subcommittee, I am Captain Pat J. Neely, President of the American Pilots' Association (APA). I appreciate the opportunity to appear today and present the support of the APA for H.R. 2158, the "Prince William Sound Oil Spill Response Act of 1989."

In addition to commenting specifically on H.R. 2158, I will attempt to provide some information for the benefit of the Subcommittee on the pilotage of Alaskan North Slope (ANS) oil ships in Prince William Sound and on the activities of the state pilots there with respect to the EXXON VALDEZ -- both before and after the accident.

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INTRODUCTION

The APA is a national trade association representing pilots in 59 pilot associations. These associations are located in each of the coastal states, including Alaska and Hawaii, as well as the Great Lakes area. There are approximately 1,100 individual pilot members in these associations who pilot all types of vessels in virtually all of the navigable waters of the United States. Each of the pilots holds a Federal first class pilot license issued by the Coast Guard in addition to a state license or, in the case of the Great Lakes, a registration issued by the Department of Transportation.

Among the members of the APA is the Southwest Alaska Pilots Association (SWAPA). The state pilots who belong to that association serve in Prince William Sound and other areas of southwest Alaska. SWAPA members have an obvious interest in the provisions of H.R. 2158 dealing with pilotage and other navigation or operating requirements for ships moving in Prince William Sound. Pilots in the other APA groups also have a significant interest in the bill as well as in other possible responses to the VALDEZ incident.

Navigation safety is the reason pilotage exists. The essential function of a pilot is to assist ships in the safe transit of this country's ports and navigable waterways. Over 135 years ago, the Supreme Court recognized that a pilot is "charged with the safety of the vessel and cargo, and of the lives of those on board... ." Cooley v. Board of Wardens for the Port of Philadelphia, 12 How. (U.S.) 299 (1851). A pilot who holds a state license or a Federal registration for the Great Lakes has additional responsibilities, however, that extend beyond services for the benefit of the ship and the shipowner. These pilots, the members of the APA, provide a public service. Each is responsible for protecting the marine environment and the safety of life and property and promoting the economic well-being of the pilot's port or waterway region by assisting in the efficient movement of ship traffic.

Throughout its history, but particularly during the last few years, the APA has been active in advocating stringent pilot training and licensing requirements and effective regulation of the professional activities of pilots. Much of the APA's recent efforts in this area have been in response to what we perceive to be a policy of the Department of Transportation since the early 1980's of reducing Federal pilotage requirements and pilot license standards. We are hopeful that a beneficial result of the VALDEZ accident will be a re-affirmation of the importance of licensed pilotage in the regulation of marine safety and of the need for meaningful licensing standards.

The circumstances of the VALDEZ accident provide a dramatic demonstration of the crucial role that humans play in ship navigation. No matter how technologically advanced a modern ship may be, the safe navigation of that ship still ultimately depends upon the qualifications and performance of the individuals on the bridge. A purposive and effective system of regulating safety should therefore have as essential features the following two requirements. First, every ship moving on inland waters should utilize a licensed pilot. Second, in order to obtain a pilot license, an individual should be specially trained for, and ultimately familiar with, the waters covered by the license and should be required to show through a rigorous examination process the individual's knowledge of local conditions and navigation requirements as well as ship handling skills.

We support H.R. 2158 because we believe that it is consistent with this view of an effective navigation safety system.

THE ROLE OF STATE PILOTS IN THE PILOTAGE OF THE EXXON VALDEZ AND OTHER TANKERS IN PRINCE WILLIAM SOUND

We understand that Long Beach, California was the destination of the VALDEZ when it left the Alyeska terminal the night of March 23, 1989. Such a coastwise trade voyage to another U.S. port is subject to the exclusive Federal pilotage requirements of 46 U.S.C. §8502. Nevertheless, all ships leaving or entering the port of Valdez--those sailing to or from a U.S. port as well as those sailing on a foreign voyage to or from Panama or the Virgin Islands--- use state-licensed pilots belonging to SWAPA. With respect to domestic voyages, the use of SWAPA pilots is voluntary, and the pilots act under the authority of their Federal pilot licenses.

On an outbound voyage, a SWAPA pilot will undock the loaded ship and then pilot the ship for approximately 16 miles until reaching the pilot station at Rocky Point. There he will disembark from the ship onto a SWAPA pilot boat. Conversely, a SWAPA pilot will board an inbound ship from the pilot boat at Rocky

Point and will pilot the ship on into Valdez, where he will dock it at the Alyeska terminal.

Both the State of Alaska and the Coast Guard approved the location of the pilot station at Rocky Point rather than at the approach to Prince William Sound at Hinchinbrook Entrance, as would normally be the case for a body of water inside the territorial sea. The station was placed at Rocky Point because the rough seas and often extreme weather conditions at Hinchinbrook make it too dangerous to put a pilot on or take a pilot off a ship there. In recognition of these special circumstances in Prince William Sound, the provisions of 46 U.S.C. §8502(g) were enacted in 1984.

On the night of March 23, 1989, Captain William Murphy, President of SWAPA, provided the pilotage services for the EXXON VALDEZ. He undocked the ship and directed its navigation as far as the pilot station at Rocky Point. There he turned the ship's navigation over to its master and left on the pilot boat. His trip had been without incident, similar to thousands of trips that he and other members of SWAPA have made since the pipeline opened. When he left the ship, it was in the correct place, was headed on the correct course and was in all respects ready to continue on a safe, routine transit through the Sound and out to sea. According to media reports, the VALDEZ struck Bligh Reef approximately 40 minutes later.

Soon after being notified of the grounding, the SWAPA pilots took the pilot boat to Bligh Reef and throughout the night charted the area between the reef and the ship channel so that ships coming to the aid of the VALDEZ could do so safely. These ships, including the smaller tankers into which the crude oil remaining in the VALDEZ was transferred, were piloted by SWAPA pilots. Eleven days after the accident, Captain Murphy was back on board the VALDEZ, this time assisting in the task of refloating the ship off of the reef. He thereafter piloted it to the location in the Sound where it has been undergoing temporary repairs. Although many officials in Washington have been eager to recount the successes in safely removing the remaining contents of the VALDEZ and freeing the ship from the reef, there has been no mention of the important role that the SWAPA pilots played in those efforts.

COMMENTS ON H.R. 2158

APA members, who spend their professional lives on the navigable waters of this country, have a keen appreciation of the marine environment as well as an informed, practical awareness of the economic and ecological damage that can result from a major oil spill. As a result, the APA endorses the provisions of H.R. 2158 intended to improve oil spill response capabilities. The provisions of the bill of most direct interest to APA members, however, are those dealing with ship navigation requirements and expanded license oversight authority. We offer the following comments on those provisions.

1. Sec. 102(a)(2); State Pilotage Requirement.

This provision would assure the continuation of the present voluntary practice of using state-licensed pilots and extend that practice farther out into Prince William Sound than is now the case. We support both measures.

The proposed federal requirement for using state-licensed pilots in this area of the Sound would be an effective, safety-enhancing measure. Present requirements for obtaining a Federal pilot license for Prince William Sound are much less stringent than those for obtaining a state license. Before serving as a state-licensed pilot in Valdez, an individual must complete a rigorous training program, must make numerous observer trips in and out of each of the berths in the port under the tutelage of an experienced master pilot and must gradually advance from the smallest ships to the largest ships. In comparison, a Federal pilot license for the same area requires no training program and only 8 to 15 familiarization trips, all of which could be in and out of the same berth and on ships as small as 1,600 gross tons. With a Federal pilot license, an individual is permitted immediately to pilot the largest ships even if his qualifying experience for the license was limited to smaller ships.

A compulsory state pilot requirement has additional features that are perhaps even more significant in enhancing navigation safety. State pilots are not members of the ship's crew or employees of the shipowner. An officer employed on a U.S.-flag ship who has a Federal pilot license serves only the interests of the shipowner. Unlike such a Federal pilot, a state pilot must accommodate differing, and sometimes conflicting, obligations. A state pilot is required to exercise independent judgment and to make navigational decisions in the interests of safety that may sometimes be contrary to the immediate wishes or interests of the shipowner. Additionally, pilotage is a career and a profession for a state pilot. It is not simply one of many other jobs to do on a ship. A state pilot has no other duties or functions on board a ship. He need not worry about attending to the hundreds of other tasks for which ships' officers, particularly masters, are responsible.

With respect to relocating the present pilot station, the SWAPA pilots indicate that they can operate from a pilot station just south of Bligh Reef. In fact, a special emergency order of the Governor of Alaska has relocated the pilotage station to a point below Bligh Reef approximately 12 miles from Rocky Point. The SWAPA pilots are operating from that point and believe that boarding and disembarking can be done safely there.

Although extending the area of operation by the SWAPA pilots, as proposed in the bill and as has been ordered by the Governor, will not prevent a ship's crew from leading a ship to mishap in other areas of the Sound, it should at least significantly reduce the possibility that Bligh Reef will again be the scene of an accident. It also should complement the navigation practices and aids that would be established under the other provisions of the bill.

2. Sec. 102(a)(1); Required Tug Escort

A tug escort is usually not a particularly purposeful method of providing for the safe navigation of a self-propelled ship moving under its own power in open waters. Nevertheless, we recognize that the tankers using Prince William Sound present special circumstances. This is particularly the case with respect to the area between the established pilot station and the entrance to the Sound where ships are navigated by their own crews. While a tug escort could never be as effective a safety measure as a licensed pilot on the bridge of the ship, we have no objection to it as a component of a navigation assistance system meeting the special needs of Prince William Sound.

3. Sec. 103; Improved Radar Coverage

The APA has consistently supported properly operated Vessel Traffic Systems and radar surveillance programs as aids to navigation. Responsibility for navigating a ship must at all times remain on the bridge of the ship, however. VTS systems and direct radar surveillance are not acceptable alternatives to independent pilots on board ships. Nevertheless, where such pilots cannot be provided to ships, VTS and radar surveillance programs become an increasingly important navigational aid.

The existing radar coverage of Prince William Sound is clearly inadequate to such a task. SWAPA pilots suggest the addition of a radar facility on Naked Island, which could provide coverage for the remaining areas of the Sound.

Sec. 201; Sanctions Against Alcohol Abuse by Marine Personnel

The APA endorses without reservation the intent of this section. Any individual who has shown, in whatever setting, that he or she is so recklessly indifferent to the consequences of excessive alcohol consumption as to make it reasonable to believe that the individual would engage in such behavior while performing the duties of his or her marine license document should not be allowed to hold the license.

While we recognize that the provisions of Section 201 are modeled after existing 46 U.S.C. §7706 dealing with dangerous drugs, the circumstances of alcohol-related offenses may have considerations that require a different approach, and the language of Section 201 may need some clarifying revisions. We would be happy to work with the Subcommittee staff in developing such revisions.

CONCLUSION

I thank the Subcommittee for the opportunity to present this testimony. The APA would welcome the opportunity to provide any additional information, materials or assistance that the members of the staff may consider helpful.

Thank You

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TESTIMONY OF THE INTERNATIONAL ORGANIZATION OF MASTERS, MATES AND PILOTS

I am here today testifying on behalf of Captain Robert J. Lowen, President of the International Organization of Masters, Mates & Pilots. My name is John Bobb. I am a licensed deck officer and Academic Director of the Maritime Institute of Technology and Graduate Studies. The Masters, Mates & Pilots represents over 10,000 active professional mariners employed worldwide in various seagoing and shoreside capacities. The Union has long been a champion of Merchant Marine safety. The MM&P's dedication to safety is evidenced by its commitment to ongoing professional training at the Maritime Institute of Technology and Graduate Studies, the premier officers training facility of the world, located only 25 miles north of here near the Baltimore/Washington Airport.

It is a privilege to be asked to comment on HR 2158. The recent catastrophe in Prince William Sound has given the entire maritime industry cause to examine its operational practices and procedures. It is especially tragic that the cause appears to be a series of human errors. We would remind those who might not

INTERNATIONAL MARINE DIVISION OF THE INTERNATIONAL LONGSHOREMEN'S ASSOCIATION / AFL-CIO

realize it that those who earn their living on the oceans of the world hold the marine environment in very high esteem.

The Masters, Mates & Pilots has examined the provisions of HR 2158 and are in general agreement. We have studied the events, as we know them, surrounding the grounding of the Exxon Valdez on March 24, 1989. We, of course, realize any conclusions may be premature, as much of the information available is by the very nature of the proceedings, incomplete at this time. We are glad to note however, that this Committee has identified two of the basic causes which played a part in this tragedy, human error and fatigue.

In our view, it is difficult to understand how the Exxon Valdez was navigated into such a dangerous situation. There can be no argument that poor judgment and human error are major contributing causes to this accident. Additionally, we believe that fatigue caused by insufficient manning certainly played a major role in this accident. Apparently none of the deck officers on the Exxon Valdez worked less than ten hours on the 23rd of March and most considerably more. It is alleged that the Third Mate who had worked from 8 a.m. to at least noon Thursday, turned to again later in the day and worked continuously through to the time of grounding. If these are correct facts, then there was a clear violation of 46 U.S. Code §8104(a) which requires a six (6) hour rest period during the previous twelve (12) hours before assuming a watch.

There are those who will say this is simply a labor organization singing the same old song, but the reason the tune plays so well is because it is the truth.

The loss of one Third Mate per ship on most of the American flag ships has meant an average work day of 10-12 hours per day for Junior Mates and even longer work periods for Chief Mates. It is axiomatic that long hours of duty have an effect on judgment. Unfortunately, no one can predict when such lapses may occur or at what point in time cumulative long hours of duty will affect the decision-making process.

In addition to increased hours of shipboard duty, periods of time off have been drastically reduced. The result is not only longer hours for a longer time at sea, but shorter periods of time in which today's mariners can unwind.

Even now the Coast Guard has sponsored a National Academy of Sciences study into the feasibility of further reducing the size of merchant ship crews. Much has been written about whether or not these reductions can be accomplished safely. These cuts are made in order to remain competitive, but whether it is American companies competing among themselves or American owners competing with foreign flag operators, the economies of the cut back are short-lived. If we cut, they cut. If they cut, we cut. The result is vessels being operated closer and closer to the edge. Overworked fatigued crews make decisions - or fail to make decisions - that can impact unfavorably on their ship mates, their vessel, or in the case of the Exxon Valdez, an entire geographic area.

It is our hope that this committee will take a long hard look at the manning issue. Any solution to the problem must include not only American flag ships, but also those foreign flag ships calling at American ports. Reduced safety and continued potential for massive environmental harm is too high a price to pay for cost reduction and competitiveness, be it an American flag ship or a foreign flag ship. You have only to ask the fishermen of Brittany or Cornwall what the Amoco Cadiz or the Torrey Canyon did to their coast line and environment. The answer would certainly be the same as that of the citizens of Alaska in the wake of the Exxon Valdez tragedy.

Of extreme importance is the need for trained and qualified state pilots aboard each vessel in U.S. waters. We wholeheartedly support Section 102(2) requiring an additional pilot licensed by the state of Alaska between the Port of Valdez to a point south of Bligh Reef.

The MM&P has long maintained that the system of federally licensed pilots on coastwise vessels is not as safe or effective as using state licensed pilots. The reason for this position was made painfully clear by the tragedy of the Exxon Valdez. Crew members licensed as federal pilots, be they master or one of the deck officers, have concerns other than the safe navigation of the vessel. They must also insure that the vessel's operational requirements are met in all respects. Excessive hours of work during the day may make them less capable in judgment than a well rested state pilot who is performing the navigational duties day in day out, rather than once every two weeks. From the known positions, it appears the Exxon Valdez may have been planning to "shoot the gap", which no licensed state pilot would have ever attempted under these circumstances.

In addition, federally licensed pilots need only pass a simple U.S. Coast Guard examination and make a very limited number of round trips in a given area in order to receive their federal pilotage endorsement. State pilots pass that same examination and then serve a stringent apprenticeship before being allowed to conduct a vessel through their waters on an almost daily basis. They concentrate solely on a limited area. Their experience and knowledge levels are much greater than either a ship's officer with a pilotage endorsement or an additional individual with serving as a federal pilot calling only occasionally at a port. It is our firm belief that requiring a state pilot aboard vessels from Valdez to south of Bligh Light will assure a predictable margin of safety.

We do question the proposed limited applicability of this bill, however. Is not the marine environment in the Gulf of Mexico or along the Atlantic coast of equal importance to that of Prince William Sound? We would urge this body to examine this question closely and to take the necessary legislative steps to repeal the coastwise federal pilotage system.

The requirement to extend radar coverage should provide an additional safeguard against the recurrence of this type of accident. We therefore endorse Section 103 of the statute requiring the Coast Guard to modify radar coverage of Prince William Sound. It is our understanding that the existing radar coverage extended beyond Bligh Island Light but that the Coast Guard did not use the radar range scale which would have allowed this area to be observed.

Due to budgetary constraints, the Coast Guard has scaled back VTS systems in other parts of the country. These cutbacks resulted in these systems being shut down totally, partially, or manpower being reduced. Were the Coast Guard personnel on the VTS in Valdez sufficient to monitor the radar and take care of administrative responsibilities? Was the outbound Exxon Valdez of no further concern since it had passed through the narrows and dropped off its pilot? We do think Section 103 will result in a re-evaluation of the Coast Guard's operational procedures in their Prince William Sound VTS and improvements should result.

Our last comment is a particularly sensitive issue. Proposed Section 7706 would result in revocation of a license for anyone convicted of violating an alcohol-related law within the past ten years.

The moderate social drinker has never created a problem. The use of alcohol is not illegal. People have and will continue to consume alcohol and occasionally may have one drink too many. Slight over indulgence at a Christmas party, a wedding, or any social event may result in a misdemeanor arrest and conviction. It seems draconian that a single lapse in judgment will result in the loss of a license and livelihood. Captain Lowen has previously commented that the solution proposed by this portion of the legislation can be likened to using an elephant to step on a flea.

On the other hand, repeated abuse of alcohol certainly is an indication of a more serious problem; a problem that until resolved, might very well warrant the suspension of a license. We do think the distinction is very important and must be made. We would urge this body to seek a reasonable and constructive solution to this real and ongoing problem. The solution must distinguish between those who have a problem with alcohol abuse and those who have made a single mistake in an otherwise sober life.

Recognizing the occasional problem drinker onboard vessels, the Masters, Mates & Pilots initiated in 1975, a Drug and Alcohol Awareness Program at the Maritime Institute of Technology and Graduate Studies. Additionally, the Union has negotiated with its employers coverage of alcohol and drug rehabilitation costs through its Health and Benefit Plan.

On American ships, the use of alcohol has always been prohibited. The shipping articles themselves state that no grog shall be allowed. However, the long hours of duty and fatigue exacerbate the use of alcohol by the problem drinker.

In December of 1987, the Coast Guard passed a final rule setting limits on the use of alcohol aboard vessels. When the Coast Guard proposed these regulations, they were supported by the MM&P. By regulations, anyone operating a commercial vessel with an alcohol concentration of .04 is deemed intoxicated. The regulations prohibit consuming any intoxicant while on watch or on duty. The regulations further require that no one assume a watch within four hours of consuming alcohol. Violation of these sections of the regulations can result in a suspension or revocation of a seaman's document or license.

While we have consistently supported efforts to address this industry problem, there is no easy solution. The problem of the heavy drinker cuts across the maritime industry as it cuts across all segments of society worldwide.

We stand ready to assist Congress or any other duly constituted authority in finding solutions to the various problems of the American Merchant Marine.

I want to thank you for your kind attention and will be happy to answer any questions you might have.

TESTIMONY OF
CORDOVA DISTRICT FISHERMEN UNITED
AND
UNITED FISHERMEN OF ALASKA
BEFORE THE
SUBCOMMITTEE ON COAST GUARD AND NAVIGATION
HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES
MAY 11, 1989

MY NAME IS RIKI OTT. I AM HERE TODAY REPRESENTING THE CORDOVA DISTRICT FISHERMEN UNITED (CDFU) AND THE UNITED FISHERMEN OF ALASKA (UFA). ACCOMPANYING ME AND PREPARED TO ASSIST IN RESPONSE TO YOUR QUESTIONS IS MICHELLE HAHN O'LEARY, A MEMBER OF THE BOARD OF DIRECTORS OF CDFU AND A MEMBER OF UFA.

I AM A FISHERWOMAN FROM PRINCE WILLIAM SOUND, ALASKA. I OWN A SALMON DRIFT GILLNET PERMIT AND HAVE FISHED PRINCE WILLIAM SOUND FOR FOUR YEARS. I HAVE ALSO LONGLINED FOR HALIBUT COMMERCIALLY AND FOR SABLEFISH AS PART OF A KILLER WHALE RESEARCH PROJECT IN THE SOUTHWEST DISTRICT OF PRINCE WILLIAM SOUND--THE PART HARDEST HIT BY THE EXXON VALDEZ OIL SPILL.

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MY TRAINING IS IN MARINE BIOLOGY AND FISHERIES: I HAVE A MASTERS IN OIL POLLUTION (UNIVERSITY OF SOUTH CAROLINA, 1980) AND A DOCTORATE IN SEDIMENT POLLUTION (UNIVERSITY OF WHASINGTON, 1986).

MS. O'LEARY HAS BEEN COMMERCIAL FISHING IN PRINCE WILLIAM SOUND SINCE 1974. SHE PARTICIPATES IN THE HERRING ROE-ON-KELP HARVEST, A FISHERY CLOSED AS A RESULT OF THE SPILL. IN ADDITION, MS. O'LEARY FISHES ON A HERRING SAC ROE SEINER, AND HAS FISHED HALIBUT IN THE SOUND.

THIS SUBCOMMITTEE HAS HEARD SUBSTANTIAL AMOUNTS OF TESTIMONY CONCERNING THE EXXON VALDEZ DISASTER. WITNESSES FROM CDFU AND UFA, AMONG OTHERS, HAVE RELATED TO MEMBERS OF THIS SUBCOMMITTEE DETAILS ABOUT THE SPILL INCIDENT ITSELF. YOU HAVE HEARD ABOUT THE INADEQUACY OF THE ALYESKA CONTINGENCY PLAN, THE LACK OF AVAILABILITY OF APPROPRIATE BOOM, SKIMMERS AND OTHER CLEAN UP EQUIPMENT AND THE DISJOINTED AND INEFFECTUAL EFFORTS TO DEPLOY IT. IN ADDITION, MANY PEOPLE HAVE TESTIFIED ON THE CONFUSION OVER BEGINNING THE CLEAN UP EFFORT AND THE INEFFICIENCIES IN CONTINUING CLEAN UP. FURTHER, VICTIMS ARE FRUSTRATED BY THE APPROACH TAKEN TO COMPENSATION FOR THEIR LOSSES. WE ARE ALL CONCERNED ABOUT SHORT TERM AND LONG TERM EFFECTS FROM THE SPILL. MEMBERS OF OUR ASSOCIATIONS SPEND A LOT TO TIME APPEARING BEFORE OTHER COMMITTEES, ERE AND IN ALASKA. WE TRY TO SET STRAIGHT THE RECORD ON THE SPILL ND THE RESPONSE AND TO PROVIDE OUR INITIAL INSIGHTS INTO WHAT DMINISTRATIVE AND LEGISLATIVE INITIATIVES SHOULD OCCUR TO CORRECT

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THE CURRENT SITUATION. OUR PRIMARY OBJECTIVE, AS IS YOURS, IS TO HELP PREVENT A RECURRENCE IN PRINCE WILLIAM SOUND OR ELSEWHERE IN THE UNITED STATES.

CDFU AND UFA HAVE FOR SOME TIME MADE SUBSTANTIAL AND COMPREHENSIVE RECOMMENDATIONS FOR IMPROVING THE TRANSPORTING OF OIL FROM ALASKA. THESE LED THE INITIAL OPPOSITION TO THE MARINE LEG OF THE ALASKA PIPELINE IN THE LATE 1960'S BECAUSE OF THEIR CONCERNS ABOUT A LARGE SPILL FROM A TANKER HITTING ICE OR RUNNING AGROUND. ULTIMATELY UNSUCCESSFUL IN CHANGING THE ROUTE OF THE PIPELINE TO THE CANADIAN ROUTE, OUR ASSOCIATIONS' FOCUS TURNED TO LEGISLATIVE AND ADMINISTRATIVE STEPS NECESSARY TO PROTECT OUR MARINE ENVIRONMENT. WE HELPED STEER COMPREHENSIVE LEGISLATION THROUGH THE ALASKA LEGISLATURE IN THE MID 1970'S, ONLY TO HAVE THE TANKER TRAFFIC, TANKER CONSTRUCTION AND LIABILITY PROVISIONS STRUCK DOWN IN FEDERAL COURT. THE MAJOR REMAINING COMPONENT OF OUR STATE LEGISLATIVE EFFORTS IS THE EXTANT OIL SPILL CLEAN UP FUND. SINCE THAT TIME, OUR ASSOCIATIONS HAVE ACTIVELY PROMOTED STRINGENT STATE AND FEDERAL OVERSIGHT AND REGULATION OF THE ALYESKA TERMINAL AND THE MARINE OPERATIONS OF THE PIPELINE. I HAVE ATTACHED TO THIS TESTIMONY A COPY OF MY STATEMENT ON BEHALF OF CDFU AND UFA ENNUCIATING A LIST OF ITEMS WHICH OUR ASSOCIATIONS BELIEVE MUST BE ADOPTED IN ANY LIST OF CORRECTIVE ACTIONS TAKEN BY THE CONGRESS AND THE IMPLEMENTING AGENCIES.

OUR REVIEW OF FEDERAL LAW (AND ITS IMPLEMENTATION) NEEDED AS A

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RESULT OF THE SPILL IS AT THIS POINT IN NO WAY EXHAUSTIVE. WE BELIEVE THERE ARE SOME STEPS THAT CAN AND SHOULD BE TAKEN NOW, BUT THAT CONGRESS SHOULD ENCOURAGE A MORE DELIBERATIVE APPROACH TO OTHER ASPECTS OF THE PROBLEM. ALASKA REPRESENTATIVE DON YOUNG AND SENATOR TED STEVENS TAKE THIS APPROACH IN THEIR RESPECTIVE BILLS.

FOR THE SAKE OF BREVITY, I WILL PROVIDE LIMITED COMMENTS ON THESE BILLS IN OUR INITIAL ATTEMPT TO ADVISE THE COMMITTEE ON WHAT LEGISLATIVE ACTION WE BELIEVE TO BE APPROPRIATE AT THIS TIME. LET ME HASTEN TO ADD THAT NONE OF US WILL STAND IN THE WAY OF CONGRESS TRYING TO PROVIDE US AND OUR ENVIRONMENT THE PROTECTIONS WE HAVE SO EARNESTLY BEEN SEEKING OVER THE YEARS. WE LOOK FORWARD TO WORKING WITH YOU IN AN ORDERLY PROGRESSION TOWARD SOUND LEGISLATION.

** OIL SPILL PREVENTION AND RESPONSE

COAST GUARD AUTHORITY

THE CONFUSION OVER INITIAL CLEAN UP EFFORTS MAKES US FIRM BELIEVERS THAT A GOVERNMENTAL AGENCY NEEDS TO BE ABLE TO STEP IN TO TAKE OVER CLEAN UP AND CONTAINMENT EFFORTS PROMPTLY. THE RESPONSIBLE PARTY, OF COURSE, SHOULD NEVER BE RELEASED FROM ANY AND ALL LIABILITY, BUT HE SHOULD NOT BE ALLOWED TO MAKE DECISIONS CONCERNING APPROPRIATE EXPENDITURES FOR CLEAN UP AND MITIGATION AS THE SPILLER HAS IN THIS INSTANCE. AFTER ALL, THE SPILLER HAS A DIFFERENT SET OF CONCERNS FROM THOSE AFFECTED BY THE SPILL.

AS FAR AS WHICH AGENCY SHOULD BE IN CHARGE. WE WOULD PREFER TO HAVE THE STATE OF ALASKA IN CHARGE FOR SPILLS WITHIN STATE WATERS. THEY HAVE DEMONSTRATED ABILITY AND INTEREST IN SPILL EVENTS IN ALASKA. AND CERTAINLY ARE THE MOST KNOWLEDGEABLE ABOUT LOCAL CONDITIONS. THEY ARE ALSO BEST SUITED TO WORKING WITH LOCAL CITIZENS. IF THE LEAD AGENCY HAS TO BE FEDERAL, WE WOULD PREFER THE COAST GUARD. IN THAT EVENT, PROVISION WOULD HAVE TO BE MADE IN LEGISLATION TO ASSURE A CLOSE WORKING RELATIONSHIP WITH THE STATE.

SOME PEOPLE HAVE PROPOSED THAT A GOVERNMENTAL ENTITY TAKE CHARGE ONLY IN THE EVENT OF A SPILL OF A CERTAIN SIZE. THAT APPROACH HAS PROBLEMS. BECAUSE YOU WANT CLEAN UP RESPONSE FROM THE OUTSET, NOT INTERNAL DEBATE ABOUT HOW BIG AND BAD A SPILL MIGHT ACTUALLY BE. IF THE FLOOR WERE LOW ENOUGH, THOUGH, WE COULD SUPPORT THAT APPROACH.

SOME MECHANISM SHOULD BE INCLUDED TO ASSURE THAT ALL COSTS WILL BE PROMPTLY TRANSMITTED TO THE RESPONSIBLE PARTY FOR PAYMENT, BACKSTOPPED PERHAPS BY SOME SORT OF ENVIRONMENTAL PERFORMANCE BOND CARRIED BY RESPONSIBLE PARTIES IN AMOUNTS LARGE ENOUGH TO COVER THE MOST CATASTROPHIC SPILL POSSIBLE.

TANK VESSEL REQUIREMENTS

VESSELS NEED TO BE ESCORTED BY MORE THAN ONE TOWING VESSEL. GIVEN THE SIZE OF THE SUPERTANKERS IN THE FLEET.

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WE SUPPORT THE REQUIREMENT FOR AN ADDITIONAL PILOT, AND WOULD GO FURTHER BY REQUIRING ALL OFFICERS TO BE CERTIFIED BY THE COAST GUARD FOR THE WATERS THROUGH WHICH THE VESSELS TRANSIT. IN ADDITION, WE DO NOT BELIEVE THE PILOT SHOULD BE DISCHARGED AS CLOSE AS BLIGH REEF, BUT SHOULD GO TO HINCHINBROOK ENTRANCE TO ASSURE PROPER STEERAGE THROUGH THE ENTIRE SOUND. PROVISIONS SHOULD BE MADE FOR HELICOPTER TRANSFER OF PILOTS WHEN SEAS ARE TOO ROUGH.

WE SUPPORT THE REQUIREMENT THAT VESSELS CARRY AS A MINIMUM THE EQUIPMENT SET OUT IN THE YOUNG BILL. CLEARLY, ANY BOOM CARRIED BY TANKERS SHOULD BE OPEN OCEAN GRADE BOOM THIS SHOULD NOT MINIMIZE THE REQUIREMENT FOR SUFFICIENT EQUIPMENT TO BE MAINTAINED AT THE ALYESKA TERMINAL AND OTHER STRATEGIC LOCATIONS.

THE TANKER FLEET HAS AGED. SOME 13% OF THE us FLAG SHIP TANKER FLEET IS INVOLVED IN TRANSPORTING ALASKA CRUDE, YET THAT FLEET ACCOUNTS FOR SOME 52% OF THE STRUCTURAL FAILURES. THERE ARE SOME FOREIGN TANKERS USED IN THE ALASKA TRADE. IT IS PAST TIME TO LOOK AT THE ADEQUACY OF THE FLEET. AS A MINIMUM, THERE NEEDS TO BE AS A BARE MINIMUM A COMPREHENSIVE STUDY OF THE NEED TO LIMIT THE SIZE OF TANKERS IN THE SOUND, AND WHETHER DOUBLE HULLS OR DOUBLE BOTTOMS OR OTHER STRUCTURAL REQUIREMENTS SHOULD BE IMPOSED ON TANKERS IN THE ALASKA TRADE.

PROBLEMS HAVE OCCURED IN THE ALASKA TRADE WITH REGARD TO THIRD PARTY LIABILITY. THIS CAME TO THE FORE IN THE GLACIER BAY

SPILL IN COOK INLET IN 1987. CORRECTIVE ACTION WOULD BE APPROPRIATE IN THIS BILL OR IN OIL SPILL LIABILITY LEGISLATION TO ASSURE US THAT LOCAL CITIZENS ARE NOT LEFT UNPROTECTED FROM FUTURE SPILLS FROM THIRD PARTY TANKERS.

RADAR COVERAGE

THE YOUNG BILL INCORPORATES SOME OF THE SUGGESTIONS MADE BY CDFU AND UFA WITH REGARD TO UPGRADING RADAR COVERAGE IN THE SOUND. WE BELIEVE THE YOUNG BILL'S PROVISION ON RADAR WOULD BE ENHANCED WITH ADDITIONAL SUGGESTIONS OUTLINED IN THE ATTACHED STATEMENT.

WHILE BLIGH REEF IS A VERY FAMILIAR FEATURE IN THE SOUND, THE SUGGESTION HAS BEEN MADE THAT NAVIGATIONAL LIGHTS OR OTHER SUCH EQUIPMENT MIGHT BE PLACED ON BLIGH REEF TO HELP AVOID FUTURE INCIDENTS SUCH AS THE EXXON VALDEZ. WE CERTAINLY HAVE NO OBJECTIO TO SUCH AN APPROACH.

EQUIPMENT AND PERSONNEL REQUIREMENTS

WE HAVE LONG BEEN IN FAVOR OF PREPOSITIONING EQUIPMENT AT THE ALYESKA TERMINAL AND IN OTHER POINTS AROUND THE SOUND, HAVING OIL SPILL RESPONSES CONDUCTED FREQUENTLY IN THE SOUND AND ASSURING THAT OIL SPILL RESPONSE TEAMS BE READILY AVAILABLE AND APPROPRIATELY TRAINED. WE, OF COURSE, WOULD NOT LIMIT THOSE REQUIREMENTS IN THE YOUNG BILL TO THE SOUND, BUT VIEW THEM AS APPRORIATE PROVISIONS FOR

ANY AREA SUBJECT TO OIL VESSEL TRAFFIC.

IN ADDITION TO THE AREAS AT WHICH EQUIPMENT WOULD BE PREPOSITIONED, WE BELIEVE THAT AREAS OF HIGHEST ENVIRONMENTAL SENSITIVITY SHOULD BE IDENTIFIED IN CONTINGENCIES AND THAT EQUIPMENT BE PREPOSITIONED AT PERMANENT MOORING POINTS IN SUCH AREAS BY THE OIL INDUSTRY. SUCH AREAS AS FISH HATCHERIES AND SALMON STREAMS COME TO MIND AS KEY CANDIDATES FOR SUCH TREATMENT.

EVEN THE BEST OF EQUIPMENT WILL NOT FUNCTION RELIABLY UNLESS CARED FOR PROPERLY. CRITICAL EQUIPMENT OUGHT TO BE STORED IN COVERED AREAS, READY FOR DEPLOYMENT IN ANY WEATHER OR TIDAL CONDITION. ALL SUCH EQUIPMENT SHOULD BE PROPERLY INVENTORIED (WITH THE INVENTORY TO BE CONTINUOUSLY UPDATED), INSPECTED AND TESTED SUFFICIENTLY OFTEN TO ASSURE THAT EQUIPMENT IS ALWAYS IN WORKABLE CONDITION. CERTIFICATION OF SUCH STATUS OUGHT TO BE PROVIDED BY THE COAST GUARD OR THE STATE.

TESTING CONDITIONS AND "FULL DRESS" TRAINING EXERCISES OUGHT TO BE CONDUCTED IN A VARIETY OF WEATHER AND OTHER TRUE TO LIFE CONDITIONS, BOTH ON REGULARLY SCHEDULED AND "SURPRISE" BASIS. EQUIPMENT AND OTHER FAILURES SHOULD BE SUBJECT TO IMMEDIATE SANCTIONS.

WITH REGARD TO INVENTORIES, WE BELIEVE THERE NEEDS TO BE AN INTERNATIONAL INVENTORY, COMPUTERIZED AND READILY ACCESSIBLE, PROVIDING INFORMATION ON THE AVAILABILITY OF EQUIPMENT. IN ADDITION, CONTINGENCY PLANS SHOULD BE REQUIRED TO COVER PROOF OF ABILITY TO OBTAIN EQUIPMENT FROM AVAILABLE SOURCES OTHER THAN IN THE IMMEDIATE AREA.

** SANCTIONS

SUBSTANTIAL FOCUS HAS BEEN, PROPERLY, PLACED ON ALCOHOL ABUSE. WE BELIEVE ALL OTHER FORMS OF DRUG ABUSE CAN BE EQUALLY PROBLEMATIC TO VESSEL SAFETY, AND OUGHT TO BE INCLUDED UNDER THE SANCTIONS SECTION AS GROUNDS FOR LICENSE REVOCATION.

WE URGE THE COMMITTEE TO REQUIRE THE DEVELOPMENT OF A NATIONAL SYSTEM OF COORDINATING STATE DRIVERS LICENSE VIOLATIONS WITH FEDERAL VESSEL AND PILOTAGE LICENSING, AN APPROACH TAKEN IN THE STEVENS BILL. IN ADDITION, TANKER CAPTAINS SHOULD BE RESTRICTED AS ARE AIRLINE PILOTS IN THE CONSUMPTION OF ALCOHOL A DAY BEFORE FLIGHTS.

IT IS OUR STRONG BELIEF THAT CONTINGENCY PLANS SHOULD DETAIL EQUIPMENT AND TRAINING REQUIREMENTS, AND THAT SUCH PLANS OUGHT TO BE ADOPTED AS REGULATIONS, GIVING THEM THE FULL FORCE AND EFFECT OF LAW, AGAIN, ADOPTING THE APPROACH TAKEN IN THE STEVENS BILL.

** RESEARCH

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WE ARE IN FULL SUPPORT OF EFFORTS TO CONDUCT RESEARCH ON LIVING MARINE RESOURCE DAMAGE ASSESSMENT AND ON SHORT AND LONG TERM ENVIRONMENTAL EFFECTS. IN ADDITION, WE SUPPORT PROVISIONS FOR IN DEPTH RESEARCH AND DEVELOPMENT OF ENHANCED OIL SPILL CONTAINMENT AND CLEAN UP TECHNOLOGY. SUBSTANTIAL SCIENTIFIC AND TECHNOLOGICAL BENEFITS WOULD RESULT FROM CONDUCTING SUCH RESEARCH IN THE CORDOVA AREA THROUGH AN OIL SPILL RESEARCH INSTITUTE, AS RECENTLY PROPOSED BY THE CITY OF CORDOVA AND OTHERS. OUR ADVISORS AND OTHERS ADMIT THERE IS NO END TO WHAT WE CAN LEARN FROM THIS INCIDENT, AND THAT THE CORDOVA AREA WOULD MAKE AN EXCELLENT LABORATORY FOR ENVIRONMENTAL AND TECHNICAL RESEARCH AND DEVELOPMENT.

** MISCELLANEOUS

EVEN BEFORE THE EXXON VALDEZ SPILL, WE WERE STRONGLY OPPOSED TO ANY FEDERAL PREEMPTION OF SUCH ITEMS AS STATE REGULATION OF OIL TANKERS OR CONTINGENCY PLANS WITHIN STATE WATERS. WE BELIEVE THAT APPROACH OUGHT TO BE ADOPTED IN ANY PRINCE WILLIAM SOUND LEGISLATION.

THE FOCUS OF THIS LEGISLATION IS PRINCE WILLIAM SOUND. WHILE WE AGREE WITH THE THRUST AND FOCUS OF THE LEGISLATION, WE BELIEVE THE SUBCOMMITTEE SHOULD CONSIDER PROVIDING THE PROTECTIONS UNDER THE BILL TO ALL AREAS WHICH TANKERS CARRYING NORTH SLOPE CRUDE TRANSIT.

WE ARE IN STRONG SUPPORT OF GRANTING THE LOCAL PORT AUTHORITY OR THE LOCAL CAPTAIN OF THE PORT THE ABILITY TO DENY THE RIGHT OF ENTRY, EXIT OR TRANSIT TO ANY OIL TANKER THAT IS OPERATED IN VIOLATION OF THE PROVISIONS OF ANY SUCH LEGISLATION.

WE BELIEVE THE PROVISIONS OF THE CURRENT TAPS COMPENSATION FUND ARE WOEFULLY INADEQUATE TO MEET CURRENT NEEDS. LIABILITY LIMITS OUGHT TO BE RAISED IN THE RANGE OF $500 MILLION TO $1 BILLION DOLLARS PER INCIDENT. THE $14 MILLION DEDUCTIBLE OUGHT TO BE ELIMINATED. THESE MATTERS ARE THE SUBJECT OF OTHER LEGISLATION IN THIS SUBCOMMITTEE, BUT NEED TO BE ADDRESSED IN LIGHT OF THE REALITY OF SPILLS SUCH AS THE EXXON VALDEZ.

WE STRONGLY BELIEVE THAT ALL OIL COMPANIES RECEIVING CRUDE OIL FROM THE ALYESKA TERMINAL MUST POST A BOND OF ONE BILLION DOLLARS PER INCIDENT TO COVER ALL THIRD PARTY (NON-OIL COMPANY-OWNED) CHARTERED TANKERS CARRYING TAPS OIL.

FINALLY, A GREAT DEAL OF DISLOCATION HAS OCCURED BECAUSE OF THE SPILL, SOME OF WHICH COULD AT LEAST HAVE BEEN MITIGATED IF RESIDENTS OF THE SOUND WERE ENTITLED TO FEDERAL DISASTER RELIEF. WE BELIEVE THE STAFFORD DISASTER RELIEF ACT SHOULD BE AMENDED TO INCLUDE OIL SPILLS UNDER THE DEFINITION OF DISASTER. CONGRESS SHOULD LEGISLATIVELY DECLARE THE EXXON VALDEZ SUCH A DISASTER.

A VAST NUMBER OF ISSUES REMAIN TO BE RESOLVED, MANY OF WHICH

MAY WELL BE THE SUBJECT OF FUTURE LEGISLATION. OUR OWN LEGISLATURE HAS RECENTLY ENACTED A HANDFUL OF BILLS RELATED TO THE OIL SPILL, AND I AM SURE THE YOUNG AND STEVENS BILLS ARE ONLY THE BEGINNING IN THIS CONGRESS. WE APPRECIATE THIS OPPORTUNITY TO PROVIDE SOME INITIAL INSIGHTS AS YOU BEGIN YOUR PROCESS HERE, AND LOOK FORWARD TO WORKING WITH YOU TOWARDS THE DEVELOPMENT AND ADOPTION OF AN EFFECTIVE AND COMPREHENSIVE LEGISLATIVE PACKAGE.

TESTIMONY

of

CAPTAIN JERRY A. ASPLAND, PRESIDENT
ARCO MARINE, INC.

before the

SUBCOMMITTEE ON COAST GUARD AND NAVIGATION

of the

COMMITTEE ON MERCHANT MARINE AND FISHERIES

U.S. HOUSE OF REPRESENTATIVES

on

H.R. 2158, THE PRINCE WILLIAM SOUND OIL SPILL RESPONSE ACT

MAY 11, 1989

MY NAME IS CAPTAIN JERRY ASPLAND. I AM PRESIDENT OF ARCO MARINE, INC., A WHOLLY OWNED SUBSIDIARY OF ATLANTIC RICHFIELD COMPANY. ARCO MARINE OWNS AND OPERATES TEN U.S. FLAG TANKERS RANGING IN SIZE FROM 70,000 TO 265,000 DEADWEIGHT TONS. THESE VESSELS ARE U.S. FLAG JONES ACT SHIPS, ALL OF WHICH ARE EMPLOYED IN TRANSPORTING NORTH SLOPE CRUDE FROM VALDEZ. WE, THEREFORE, WELCOME THIS OPPORTUNITY TO COMMENT ON THE PROPOSED "PRINCE WILLIAM SOUND OIL SPILL RESPONSE ACT OF 1989", WHICH WILL IMPACT EVERY ASPECT OF OUR BUSINESS.

IT IS REGRETTABLE THAT THIS PROPOSED LEGISLATION IS DEEMED NECESSARY. PRIOR TO MARCH 24, 1989 THE OIL INDUSTRY HAD PRODUCED SEVEN BILLION BARRELS OF CRUDE ON THE NORTH SLOPE WHICH HAD BEEN TRANSPORTED FROM VALDEZ, IN OVER 18,000 TRANSITS THROUGH PRINCE WILLIAM SOUND, WITHOUT ANY MAJOR ENVIRONMENTAL INCIDENT. WE DEEPLY REGRET THE FAILURE OF THE SYSTEMS IN PLACE TO PREVENT, OR QUICKLY MITIGATE, THE ENVIRONMENTAL DAMAGE CAUSED BY THE GROUNDING OF THE EXXON VALDEZ. AS A MEMBER OF A RESPONSIBLE INDUSTRY, WE SUPPORT CHANGES WHICH WILL IMPROVE OUR ABILITY TO EFFECTIVELY REACT TO FUTURE ENVIRONMENTAL THREATS. THE U.S. VITALLY NEEDS ALL THE DOMESTIC OIL THAT CAN BE PRODUCED TO ENSURE THAT WE DO NOT BECOME COMPLETELY DEPENDENT ON FOREIGN SOURCES OF ENERGY. WE MUST REALIZE THAT TO IMPORT VAST QUANTITIES OF CRUDE FROM FOREIGN SOURCES EXPOSES US TO RISKS FROM FOREIGN TANKERS OVER WHICH WE HAVE LESS CONTROL.

WE HAVE REVIEWED YOUR PROPOSED LEGISLATION AND, IN GENERAL, SUPPORT THE INTENT. WE DO HAVE SEVERAL COMMENTS ON THE SPECIFICS OF YOUR PROPOSALS, WHICH WE ASK YOU TO CONSIDER. WE ARE VERY PLEASED TO SEE IN YOUR PROPOSAL THE RECOGNITION OF THE VITAL NEED FOR WELL DEFINED LINES OF AUTHORITY WHEN OIL IS SPILLED AND MUST BE CLEANED UP. IN 1985 AN ARCO MARINE VESSEL SPILLED A CONSIDERABLE AMOUNT OF OIL IN PUGET SOUND IN THE STATE OF WASHINGTON. THIS SPILL WAS SUCCESSFULLY CLEANED UP AND NO LITIGATION HAS BEEN FILED. WE ATTRIBUTE THIS SUCCESS TO OUR UNDERSTANDING OF THE NATIONAL CONTINGENCY PLAN AND TO OUR COMMITMENT TO MAKE THE PLAN WORK.

WITH REFERENCE TO SECTION 101 (U.S. COAST GUARD AUTHORITY), WE STRONGLY SUPPORT THIS SECTION BUT BELIEVE THE COAST GUARD PRESENTLY HAS ALL THE AUTHORITY IT NEEDS UNDER THE NATIONAL CONTINGENCY PLAN. IT IS THE IMPLEMENTATION OF THAT AUTHORITY THAT MAY REQUIRE ADDITIONAL EMPHASIS. TO THIS END WE WOULD SUGGEST MODIFYING SECTION 101(c) AS FOLLOWS: THE U.S. COAST GUARD SHALL ESTABLISH A NATIONAL OIL SPILL CLEANUP MANAGEMENT TEAM. THIS TEAM WILL BE PREPARED TO ASSUME THE MAJOR CONTINGENCY MANAGEMENT POSITIONS FROM THE LOCAL U.S. COAST GUARD DISTRICT, SUCH AS THE ON-SCENE COORDINATOR, WHEN THE AMOUNT OF OIL SPILLED IS IN EXCESS OF 5,000 BARRELS OR WHEN INITIAL COMPANY CLEANUP EFFORTS ARE INADEQUATE. THIS DIFFERS SOMEWHAT FROM PAST PRACTICE. IT ENSURES THAT THERE WILL ALWAYS BE A TEAM OF HIGHLY TRAINED AND PRACTICED PERSONNEL READY TO ASSUME CONTROL OF CLEANUP AT ALL TIMES.

THIS TEAM COULD INTERACT WITH LOCAL COOPERATIVES TO ENSURE THERE ARE ADEQUATE CONTINGENCY PLANS, MATERIALS AND EQUIPMENT IN PLACE TO COMBAT SPILLS.

WE HAVE MAJOR CONCERNS WITH SECTION 102 TANK VESSEL REQUIREMENTS, PART a (3). AS TANK VESSELS ARE TO BE ESCORTED, THE ESCORT VESSEL IS A LOGICAL CHOICE FOR STORAGE OF BOOM AND OTHER SUPPLIES TO COMBAT A SPILL. THE ESCORT VESSEL IS MANEUVERABLE AND WOULD BE MORE EFFECTIVE AS A PLATFORM FOR DEPLOYING SPILL MATERIALS. MATERIALS AND EQUIPMENT STORED ON A TANKER WOULD BE DIFFICULT FOR THE CREW TO USE EFFECTIVELY. THE CREW SHOULD BE ABLE TO CONCENTRATE ON THEIR PRIMARY ROLE OF SAFEGUARDING THE VESSEL AND SAVING LIFE. WE URGE THAT YOU MODIFY SECTION 102, PART a (3) ACCORDINGLY.

WE REGARD SECTION 103 AS A PRIMARY GOAL OF THIS LEGISLATION. THE PREVENTION OF INCIDENTS IS MORE COST EFFECTIVE AND EFFICIENT THAN ANY METHOD OF DEALING WITH THE AFTERMATH OF AN ENVIRONMENTAL INCIDENT. WE, THEREFORE, RECOMMEND THAT FUNDING FOR IMPROVED RADAR COVERAGE AND ENHANCED VESSEL TRAFFIC SYSTEMS RECEIVE THE HIGHEST PRIORITY OF ALL THE ITEMS COVERED IN THIS LEGISLATION.

WE STRONGLY SUPPORT THE CONCEPT OF INCREASED PREPAREDNESS AND THE PRE-POSITIONING OF EQUIPMENT AND PERSONNEL STATED IN SECTION 104. WE HOPE THAT THE SPECIFICS CAN BE WORKED THROUGH AS PART OF THE BROAD REVISIONS OF THE CONTINGENCY PLAN THAT IS CURRENTLY UNDERWAY.

WE SUPPORT THE INTENT OF SECTION 201. BASED ON GENERAL INDUSTRIAL EXPERIENCE, ALCOHOL AND DRUGS HAVE BEEN FOUND TO ADVERSELY AFFECT PERSONNEL JUDGEMENT AND PERFORMANCE. THE MOST EFFECTIVE WAY TO COMBAT THIS PROBLEM IS BY RANDOM DRUG AND ALCOHOL TESTING. THE GRAVITY OF HAVING PERSONNEL IN CRITICAL SITUATIONS WHO ARE INCAPABLE OF MAKING APPROPRIATE DECISIONS BECAUSE THEY ARE UNDER THE INFLUENCE OF DRUGS AND ALCOHOL IS SO SERIOUS THAT IT MUST BE DEALT WITH EFFECTIVELY AND MORE BROADLY THAN STATED HEREIN. WE CANNOT CONFINE THIS SERIOUS OFFENSE TO SUCH A LIMITED GEOGRAPHIC AREA. EFFECTIVE SCREENING FOR DRUGS AND ALCOHOL SHOULD BE APPLICABLE TO ALL PERSONNEL SAILING IN U.S. WATERS, BOTH IN U.S. AND FOREIGN FLAG SHIPS. IT IS OUR UNDERSTANDING THAT THE GROUNDING OF THE EXXON VALDEZ WAS NOT CAUSED BY ANY TECHNICAL FAILURE. WE BELIEVE IT WAS A FAILURE OF THE HUMAN SYSTEMS. IT IS ESSENTIAL THAT WE BUILD TEAMS WHICH ARE SO WELL TRAINED THAT THE OMISSIONS OF ANY INDIVIDUAL DO NOT ADVERSELY IMPACT THE CORRECT DECISION MAKING PROCESS. WE BELIEVE IT WAS THE FAILURE OF THE TEAM CONCEPT, WHICH WE HAVE ALSO EXPERIENCED IN OUR OWN FLEET, THAT WAS THE REAL CAUSE OF THIS INCIDENT. WE MUST DEVOTE OUR ENERGIES TO THE IMPROVED SELECTION AND TRAINING OF PERSONNEL AND TO THE DEVELOPMENT OF TEAM SYSTEMS.

WE SUPPORT THE CONCEPT UNDERLYING SECTION 302 BUT WOULD RECOMMEND THAT PART (2) ALSO BE ASSIGNED TO THE U.S. COAST GUARD. IN OUR OPINION THE COAST GUARD IS MUCH BETTER

PREPARED TO EXAMINE THE AREAS OUTLINED THAN THE MARITIME ADMINISTRATION.

IN CLOSING, WE WOULD LIKE TO REINFORCE OUR SUPPORT FOR CHANGES IN VESSEL OPERATIONS (SUCH AS IMPROVED SPILL PREPAREDNESS, A DRUG AND ALCOHOL FREE ENVIRONMENT AND ENHANCED TEAM TRAINING) NOT ONLY IN PRINCE WILLIAM SOUND BUT ELSEWHERE IN THE U.S. AND WORLDWIDE. WE WOULD ALSO REQUEST THAT YOU EXAMINE THE ALTERNATIVE OF ISSUING SECTIONS 101, 102, 103, 104, 201, AND 202 AS REGULATIONS INSTEAD OF ENACTING THEM INTO LAW. WE OFFER THIS FOR CONSIDERATION BECAUSE, AS THE ENVIRONMENT IN WHICH WE PERFORM OUR DAILY ROUTINES CHANGES, SO WILL THE EFFECTIVENESS OF THESE SECTIONS. IT IS LESS CUMBERSOME TO MAKE CHANGES TO REGULATION THAN TO LAW. THANK YOU VERY MUCH. I WOULD BE MOST HAPPY TO ANSWER ANY QUESTIONS.

TESTIMONY OF

ERNEST J. CORRADO
PRESIDENT,
AMERICAN INSTITUTE OF MERCHANT SHIPPING

ON

H.R. 2158
"THE PRINCE WILLIAM SOUND OIL SPILL
RESPONSE ACT OF 1989"

BEFORE THE

SUBCOMMITTEE ON COAST GUARD
AND
NAVIGATION,
HOUSE MERCHANT MARINE AND FISHERIES
COMMITTEE

MAY 11, 1989

Mr. Chairman, I am Ernest J. Corrado, President of the American Institute of Merchant Shipping (AIMS), which is a national trade association representing 20 U.S.-flag carriers owning or operating approximately eight million deadweight tons of tankers, dry bulk carriers and other oceangoing vessels engaged in the domestic and international trades of the United States.

Mr. Chairman, we in the U.S.-flag tanker industry deeply regret the March 24 tanker accident in Prince William Sound, Alaska. While it's little consolation, there were some 18,000 transits with but very few minor pollution incidents preceding the catastrophe. Indeed, it is commendable that this Committee has moved without delay to convene this important hearing today on oil spill related issues.

The tragic EXXON VALDEZ spill has served to shock the industry and the nation out of what might have been a developing complacency, a feeling that perhaps the next big oil spill would not happen. As a consequence, I can assure you that industry is responding aggressively and is developing new measures to prevent such accidents and to respond in an effective, timely manner if they should occur.

The spill is attracting worldwide attention. It was referred to during the Diplomatic Conference involving maritime salvage which the U.N.'s International Maritime Organization (IMO) held last month in London and in which sixty-five governments participated. There is no question that vessel design and operations will receive renewed attention within IMO.

Vessel operating companies provide marine transportation services internationally. Because of the international nature of this service industry, individual governments must work through IMO to implement design and major operational changes in the world fleet. A single government may impose design and operating requirements on vessels of its own flag. However, without international sanction, it is virtually impossible for it to impose these same requirements on vessels of other flags trading to its ports. Thus, the role of IMO is vital in providing a forum for governments to agree upon and adopt standards and regulations governing vessel design, safety and pollution prevention which can then be ratified and brought into force by IMO member governments.

Our testimony today concerns H.R. 2158, "The Prince William Sound Oil Spill Response Act of 1989". Specifically, our comments address the sections dealing with tank vessel requirements, radar coverage, revocation of licenses, and Secretarial reporting. To begin with, the EXXON VALDEZ spill requires a careful response to ensure that accidents of this magnitude do not occur in the future. In this regard, we believe that the most prudent initial response by the government is for the Coast Guard to initiate studies to consider tanker safety issues, including those set out in H.R. 2158. These are generally technical matters and, as such, they should be considered administratively rather than as mandatory standards enacted by Congress. Also, any additional tanker safety features that the Coast Guard concludes to be necessary, including those proposed in H.R. 2158, can be implemented without delay under existing statutory authority. We are concerned that enactment of legislation mandating specific technical tanker requirements, applicable to only one state, without Coast Guard study, would set a poor precedent and may not be the best response. We would now like to offer our comments on several of the sections in H.R. 2158.

Section 102 (a)(1): TUG ESCORTS

We are not opposed to a requirement for an escorting vessel for laden tankers in Prince William Sound. However, for several reasons, we believe that such a requirement and its implementation should be left to negotiations between the State of Alaska, Alyeska, and the users of the marine terminal rather than federal law. First, there are several studies available concerning the effectiveness of tug escorts in the event of a problem developing. AIMS was involved in extensive testing performed in 1981 on the utilization of escort vessels in controlling large tankers. Those tests and others indicate that it is a complex endeavor for an escort vessel to tie up to and control a tanker underway. It must be carefully done, at the proper speed, and with an appreciation for the effects that an escort vessel can have. A tanker, or any oceangoing vessel, must be carefully maneuvered at a speed which recognizes the local navigational hazards and yet is great enough to provide for the maximum maneuvering performance of the vessel. An escort vessel cannot be perceived as a substitute for the utmost care and attention being paid to the prudent navigation of the ship in the first place.

Second, we believe that discussions of the need for escort vessels in any particular situation should be based on the existence of navigation hazards and a careful review of other measures including VTS operation and pilotage requirements. Consequently, any requirement for an escorting vessel should be implemented by state or local regulations rather than federal Coast Guard regulations.

Section 102(a)(2): PILOTAGE

We support a requirement for tank vessels to use two federally licensed pilots between the Port of Valdez and a point south of Bligh Reef. The present requirement is that a coastwise vessel must have on board a federally licensed pilot. The procedure in the Prince William Sound is for a ship's officer with a federal pilot license (usually the Master) to pilot the vessel within the Sound up to the Valdez Narrows. There, a local federally licensed pilot boards the vessel for pilotage to the terminal. However, this section would change federal law with respect to Prince William Sound to require, in addition to the ship's federal pilot, an additional pilot licensed by the State of Alaska while within the waters described in the paragraph. We cannot agree with the specific referencing of state pilotage requirements as we feel that the federal licensing requirements are very satisfactory and permit only the most competent of persons to serve as pilots. Additionally, we feel that the referencing of a state requirement in a federal statute to fulfill a federal pilotage mandate is not an appropriate precedent to set.

In reading this section, we believe that the intent may be to have another equally qualified pilot on board the vessel who is not part of the normal ship's complement, in addition to the presently required pilot. We believe that the idea of an additional federal pilot has merit when the vessel is navigating in the waters described in this paragraph. We note this would require very clear communications among those on board to ensure that accurate and timely pilotage advice will be given and by whom it will be given.

In addition, we would like to draw your attention to the fact that last year the National Transportation Safety Board recommended that the Coast Guard seek legislation requiring all pilots of commercial vessels on the navigable waters of the United States to have a federal pilot's license which would be legally superior to all state issued documents. We fully support this recommendation.

Section 102(a)(3): ONBOARD OIL CONTAINMENT EQUIPMENT

We cannot agree with the requirement in this section for tank vessels to carry heavy duty oil booms and other equipment to deal with overboard oil spills from the vessel. In reality, it is impossible and unsafe to mount an effective oil spill response to an overboard spill using onboard resources. Crew safety presents particular concerns when going over the side in a small boat in Arctic waters or in adverse weather conditions and heavy seas. First, small boats are difficult and dangerous to launch and recover from a large ship in heavy seas. Second, it is especially dangerous to place crew members in a small motorboat into and around a potentially volatile oil spill because of the risk of capsizing or even igniting the spill. Rather, boom containment equipment is better stored near oil terminals for deployment by trained response teams.

Furthermore, tanker casualties require that actions be taken to stabilize the vessel and mitigate any further oil release. This normally requires the full crew complement to respond effectively. In short, the priority attention shipboard personnel must give to the vessel itself and the impracticability of responding to tanker spills using onboard resources suggest that the proposal to require vessels to carry oil spill containment equipment onboard is ill-advised.

Experience has shown that, in the event of an oil spill from a tanker into the marine environment, it is more effective to rely on timely response by shoreside personnel with equipment to deal with the problem.

Section 103: RADAR COVERAGE

AIMS fully supports mandatory participation in Vessel Traffic Systems (VTS). These systems significantly enhance navigational safety. Radar coverage to monitor a vessel's progress through the traffic lanes in a VTS is a critical element. We believe that all VTS should be equipped with the best radar coverage possible. Accordingly, we support a plan to extend the radar coverage in the Prince William Sound to cover the entire length of the Traffic Separation Scheme.

Section 201: REVOCATION OF LICENSE

We are in complete agreement with most of the changes being proposed. We note that this is a very strict standard to set and are in accord. We would further note that the satisfactory proof of rehabilitation should be monitored carefully. The details of this monitoring can be left to the regulatory process. However, the AIMS membership has conflicting views with respect to the question as to whether anyone with a controlled addiction and/or who has undergone a rehabilitation program should be allowed to return to any sensitive position with respect to the control of a vessel. Some members believe that a rehabilitated person could be returned to a sensitive position. Other members feel that such a person should be given another job, but not returned to a sensitive position.

Section 401: SECRETARIAL REPORT

AIMS fully supports this section and urges its immediate passage. We believe that Congress should receive and consider the report before proceeding with the enactment of any further legislation in response to the oil spill.

Thank you, Mr. Chairman, this concludes our remarks. We would be happy to respond to questions or provide further information for the record.

Oil Spill Dispersants: Good Or Bad for the Environment?

A controversial method of protecting sensitive coastal habitats from ocean oil spills has received a qualified seal of environmental safety from a Research Council team of scientists.

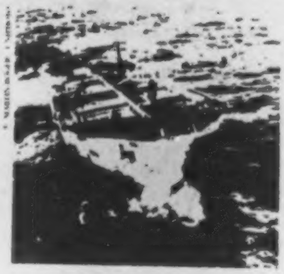
A Marine Board committee said modern chemical dispersants, which help break up oil spills, are usually less toxic than the oil itself and can be used safely under certain circumstances. It also emphasized that dispersants are most effective when applied immediately after a spill occurs, saying government regulations that require other clean-up efforts to be tried first may be counterproductive in some situations.

"Most of the dispersants that are now available, certainly the ones that are licensed to be used in the United States, are relatively non-toxic," said committee member John M. Teal, a senior scientist at the Woods Hole Oceanographic Institution in Massachusetts.

Suspected as Harmful

Chemical dispersants have long been suspected of causing more environmental harm than good. In 1967, thousands of tons of dispersants were poured on crude oil that spewed from the tanker *Torrey Canyon* onto the British coast. Experts later concluded that the chemicals contributed to the deaths of local animals and plants, adding to the ecological damage.

Since then, coastal planners have expressed concern about the possible consequences of using dispersants on spills, which remain among the most serious environmental threats to ocean waters and coastal regions. On average, an estimated 22 million barrels — or almost a billion gallons — of crude and refined oil and petroleum hydrocarbons enter annually into the world's oceans from all sources.



Breakup of the Amoco Cadiz, 1982.

Although spectacular shipping disasters attract the most attention, only about 13 percent of oil and petroleum products that enter the sea come from ship accidents. The number of tanker spills has dropped over the past two decades — with the notable exception of those due to the Persian Gulf war.

Most oil and petroleum products that enter the ocean come from more routine sources, such as ship bilges

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Using Oil Spill Dispersants on the Sea. Committee on the Effectiveness of Oil Spill Dispersants, Marine Board, Commission on Engineering and Technical Systems (1988, 352 pp.; ISBN 0-309-03889-8, $39.95; ISBN 0-309-03882-0, paperback, $29.95, available from National Academy Press) and the runoff from highways and sewers. Another publicized source, offshore production accidents, accounts for less than 2 percent of spilled oil, although a 1979 well blowout that dumped 3.1 million barrels of crude oil into the Gulf of Mexico near the Mexican coast was the biggest spill ever.

Ocean Spills

The committee, which focused on oil spills in oceans rather than in inland waters, said oil treated with chemical dispersants is no more toxic than like amounts of untreated oil. In practice, treated slicks are usually less toxic because they dilute in water. Dispersed oil also tends to disappear more quickly into the ocean, posing a shorter threat to the environment, the committee said. It noted, however, that dispersants may provide only limited benefit in major disasters where the amount of oil overwhelms any response.

Dispersants typically are made of thick liquid detergent that is mixed with a solvent that thins the detergent and makes it easier to apply. Workers spray the dispersants onto the spill, usually from airplanes. The molecules of the dispersant attach themselves to the oil, reducing the surface tension. The oil breaks up into tiny droplets, which then mix with the sea.

The process is similar to what happens during cleanup in the kitchen sink, noted Donald MacKay of the Institute for Environmental Studies at the University of Toronto. "If you have a sink full of water and there's chicken fat or grease on the surface, and you squirt some dishwashing liquid into it and then mix it up a bit, the fat or oil on the surface of the water vanishes," he said. "That oil has been converted into very tiny droplets of material, which remain suspended in the water column."

Oil spill research at Environmental Protection Agency facility.

Studies off the coasts of New Jersey and California have shown that dispersing slicks in this way can help break up the oil and, in many situations, is the best course of action. When slicks are large and ocean waters rough, for example, no other option may be possible.

"The mandate is clear to use chemical dispersants" when oil must be dispersed before it reaches shore, said

James N. Butler of Harvard University, who chaired the committee.

Risks in Shallow Water

Once oil enters coastal habitats, however, the decision to spray dispersants raises difficult ecological tradeoffs, the committee advised. Dispersing oil in shallow water near a coastline, for example, may harm fish and shellfish, and spraying may harm bird colonies. Yet leaving it untreated may endanger water birds and sea otters that could become covered with oil.

"If a slick were off Barataria Bay in southern Louisiana at the time of the shrimp migration, you'd need to be very cautious about using dispersants because you might affect a major shrimp fishery," noted committee member John P. Fraser, an environmental adviser to the Shell Oil Company. However, the same slick left untreated might threaten the brown pelican, Louisiana's state bird and an endangered species. The situation would pose "a difficult question to address," Fraser said.

The committee stressed the importance of advance planning to allow such decisions to be made knowledgeably. It said planners need detailed biological surveys of endangered areas to guide them. Such a survey now being carried out in the Gulf of Mexico is expected to provide detailed information on how different Gulf species are affected by oil spills and dispersants, Fraser noted. The survey is expected to be completed this year.

An estimated 22 million barrels — or almost a billion gallons — of crude and refined oil and petroleum hydrocarbons enter annually into the world's oceans from all sources.

Quick Action

The committee also stressed the importance of responding quickly when disaster strikes, saying dispersants are most effective when applied within the first five hours after an accident. After a day or two, evaporation and weathering cause spilled oil to become too viscous to disperse with chemicals.

"You can't decide to set up a committee and have meetings about this if there's an oil spill," MacKay said. "People have to be able to respond at 2 o'clock on a Sunday afternoon. They have to have the dispersant there. They have to have contracts in place with people who can apply it."

He noted that current regulations generally require officials to obtain permission from the Environmental Protection Agency and the affected states before they are allowed to begin spraying — a process that easily can exceed five hours.

Applying dispersants quickly is especially important because effective alternatives do not exist for treating ocean oil spills, the committee said. Mechanical skimmers, which may work well in calmer inland waters, generally perform poorly in the ocean. The committee stressed, however, that much remains to be learned about measuring ocean spills and treating them with dispersants most effectively.

"We need to learn more through using them more often," said committee member Peter G. Wells of Environment Canada, that country's environmental agency. "What we want to do is find out for sure where we should never use dispersants and for sure where they will work."

— Hugh McIntosh

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